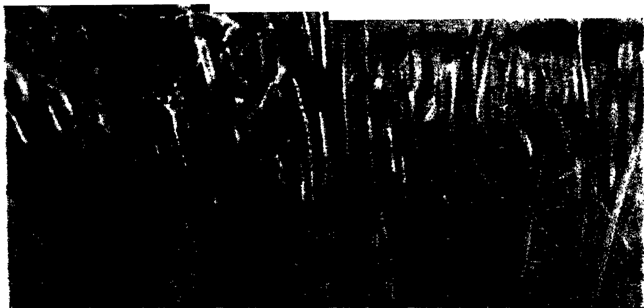
ENGLAND'S BIRDS

by the same author

QUEST FOR BIRDS

H. F. & G. Witherby





Hen Montagu's Harrier
From a painting by Roland Green

ENGLAND'S BIRDS

by

W. K. RICHMOND

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W. K. RICHMOND.

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Chapter I

RIVERMOUTH



There is something fine about the estuary. It lies bare to heaven with an immense low skyline fading out to sea, a desolation of mud and slime through which the slow river makes its sinuous and lonely progress. The tawny saltings, a level and seemingly endless carpet, stretch for miles on the north and south shores, intersected here and there by black oozy creeks whose wanderings and minute ramifications are seemingly endless. Some of the wider creeks stretch away beyond the marshes to the regions of solid ploughland and pasture. Throughout the grey wintry daylight the harsh wind stirs wirily in the sere vegetation and the stiff brown grasses of the wide saltings, and the long low sea dyke is the only shelter from its continual piercing blast. Not a soul in view; not a house or even the prospect of one; only a few gaunt twisted bushes for trees; no sound from the expanse of ooze and water save the raucous half-suppressed cry of a far-off bird. For most people the scene is merely cheerless and entirely forbidding. When the snow lies inches deep and the briny pools left by the receding

tide bear a crinkling of ice even at mid-day, it is not the kind of place which would appeal to many as a potential pleasure resort. But for those happy few who feel the call of the water and the wild the wide featureless river mouth with its desolate marshes has a fascination, a strange, illogical charm which is irresistible.

Throughout the winter the estuary is the haunt of thousands of wildfowl. To an inexperienced or a disinterested eye their presence may not be obvious, but they are there. The white glint of a gull's wing as it turns in the pale sunlight or the keen whistling of pinions of a bunch of duck racing in the sky overhead might well be noticed, but few would guess what an enormous variety of bird-life is secreted far out there on the open water, on the mudflats, or in the saltings and the marshes. Ducks, geese, wading birds and marine species of various kinds move in each day with the incoming tides, some to shelter, the majority to feed. When the weather is really severe a great exodus of birds from the Continent occurs, and to the east coast estuaries of England comes many a strange bird seeking temporary shelter and more open conditions. Some of the birds will remain in the estuary for long periods using regular grounds for feeding and sleeping each day, but the great majority never remain in one place long. They are winter birds-of-passage and soon continue their wanderings elsewhere. The attraction of the estuary for the bird-watcher is consequently ever fluctuating and surprising, for the disappearance of one



BARN OWL: POST-SQUATTING

Eric J. Hosking



THE ROOK—'QUITE A CHARACTER'

C. W. Teager [Chelmsford]

interesting species is compensated almost immediately by the arrival of another. Only look through the clear glass of a powerful telescope, turn it over to where the advancing tide is pushing its way over the dark mud-flat, and you will see something of the estuary's life.

Here a small party of spiky-crested Mergansers are fishing together in an animated company. Each bird is constantly taking a header, leaping out of the water in a curve and showing its underparts and crimson feet as it goes under, then reappearing with neck erect and bill outstretched, nervously watching for danger. The loose straggling head-plumes of the handsome drake blow carelessly in the wind, his dark emerald head flashes and his delicate bright coral bill shines in the sunlight for a moment. Then a plunge and he is under again sharing the sport with his five ginger-headed females. The fish are nearly always swallowed under-water, but when an unusually large capture is made the difficulty of disposing of it is solved on the surface. A few yards away a pair of Common Gulls are making a pretence of resting on the water, but every now and then they rise in the air and hover over the fishers, sometimes dropping on them when they are just re-appearing and making as if to attack them. If the Mer-ganser does happen to bring anything to the surface he stands an even chance of losing it, for as often as not the gull is on him in a flash. Mergansers are nervous, timid birds, almost incapable of any retaliation, and any show of violence soon terrifies them. Usually they

disappear abruptly in a frightened dive as soon as the gull hovers above them, and reappear further off looking rather scared. Although this type of bullying is practised upon them every day of their lives the flock will only stand it for so long. Then quite suddenly all the birds make a dash for it, flying swiftly over the water in a line. The white-necked drake leads the way. Alighting further off they swim close together for a short while with necks vertical and bodies low in the water and, satisfied then that all is well, continue their fishing in temporary peace.

Further over is a similar party of Goldeneyes also diving. So busy are they that sometimes not a single bird is to be seen on the surface. Each bird dives on its own account and takes little notice of the actions of its fellows. Bobbing up and down together it is difficult to watch any particular individual among them. The females and young immature birds with their grey backs and dun-brown heads are almost indistinguishable, but the eye is instinctively attracted by the brilliant, white and black plumage of two adult drakes. Even in January the drakes are frequently seized by sexual emotions, and when they have left off diving and are swimming quietly together their heads will suddenly shoot rigidly upwards and back and their tails jerk up with a convulsive motion. It looks as though some spring had been suddenly released in the bird's body. A pair of amorous drakes will swim after a drab little duck frequently performing this ludicrous

nervous action, but at this time of year it seems to produce little effect and rouses little interest in her.

Out on the yet bare flats is a great and varied flock of waders. Immense numbers of little Dunlin, crowded into one dense flock, are eagerly feeding heads down at the water's edge, running nimbly on twinkling feet, and searching the surface for invisible minutiæ—small crustacea and mollusca. For a moment they rise capriciously, wickering and twittering in a shimmering cloud of grey wings and silver bodies. Twisting and swinging they race for a few moments and then descend on the very spot from which they rose, where they immediately resume their busy search. What causes these sudden little panics, when a thousand rise in a body, is often not visible to a human watcher. Here and there amongst them a melancholy-looking Grey Plover stands limply, diffidently picking some fragment from the ooze now and then. . . . On the ground they look tired and spiritless, an impression which is momentarily strengthened by their plaintive whistle 'too lee wee' when they fly up, but once they are on the wing they fairly swish through the air. There they can outdistance all comers. Curlews stalk about with great deliberation, eyeing the mud all the time and occasionally plunging their bills in deeply and swallowing some substantial wriggling marine worm. They do not forget, however, to stand at gaze after a few moments with their necks erect and their long curved bills half raised in questioning attitude. In the

Curlew, too, life rises triumphant above the wintry conditions and their wild exultant bubbling as they fly to and from their feeding grounds is one of the commonest and certainly the gladdest of the estuary's cries.

Companies of Redshanks are everywhere, hundreds and hundreds of them trimly walking or poking about on the edges of pools. They are suspicious birds and frequently change their ground, fluting to each other as they fly. Far out amongst them stands a solitary grey Heron with its neck folded in between its shoulders, and its wings hunched on its back like a humpback's cloak. Let us hope we are right in thinking that the Heron's outward appearance is no indication of the state of his mind, for he appears to be the very picture of abject misery. He will stand disconsolate in the same attitude for a whole hour, and never move a muscle. But at least he is secure out there on the mud. After a time his lanky neck unfolds and for a while the bird stands upright, lean and gaunt, with a wild primeval look on its spear-like face. Gawkily and slowly it stalks down to the water's edge, and cautiously wades in. Its neck is now rigid and held forward so that it reaches out over the water. With much caution it slowly raises its great feet one after the other as it goes, holding each one for a moment before placing it in the water. Then it halts, its head goes up, then is steadied, then lowered again with the yellow bill pointed at the water just in front. A moment's hesitation . . . and it looks as though an opportunity is missed. The head flashes, there is a

movement in the smooth water and a gulping in the Heron's grey throat tells us that the fish is caught. The bird knows far better than we do that 'psychological moment' when action means success.

A few moments later it launches itself into the air, folds its head in the hollow of its shoulders again, lifts its long legs up and flaps steadily off across the estuary. The measured deliberation of the wing-beats gives them the appearance of being slow, but 140 to the minute is a fair average, and the general rate of progress is much swifter than one at first imagines.

Wildfowl and wading birds are far from being the only types of bird life to be seen down in the estuary. On the saltings and on the marshes and the freshwater 'fleets' behind the sea wall many an unusual visitor may be seen from time to time. From among the sueda a large flock of finches rises in a great scurry full of excited twitterings. They scatter, then sort themselves out and descend again a hundred yards off. Most of them are Linnets but a long-drawn plaintive sound is enough to identify some of them as Twites. These long-tailed, grey finches come from the north, and in company with the homely Linnets and Greenfinches seek for minute seeds fallen from the withered vegetation of the saltings. A little further and a solitary Corn Bunting rises at our feet and makes off with a clicking note and a rustling of wings. Beside the sea wall we disturb a Shorteared Owl that has been sheltering there all day from the wind. Calmly the spotted, fawn bird rises in

the air before we are too near and flies gently out over the saltings, its wings now rising and falling with easy deliberation and then gliding for a few moments. In flight the Shorteared Owl looks a moderately large bird with long spacious wings and a buoyant, easy-going flight. In mid-winter this bird (and the Barn Owl too), frequently hunts in broad daylight—even in broad sunlight, and quarters the ground with its low easy flight, rising on rapidly winnowing wings to hover with legs dropped over some potential prey, then beating off. Suddenly it will arrest its onward flight, make a half turn and plunge head down into the grass lying for a moment all sprawling and crumpled up over its victim. Then it collects itself and proceeds to swallow its capture whole. This always takes a few moments and during the process the bird's neck and head feathers have the appearance of being puffed out.

The Shorteared Owl is the only British owl which habitually lives on the ground. It sleeps there, feeds there and nests there. The Barn Owl (another bird of the marshes) has acquired the profitable habit of post-squatting while hunting, and in the winter afternoons constantly changes his perch, effecting many a kill by this variation in method. One can often watch him there looking down into the long grass below him with the liveliest interest, his white triangular face turning slowly from side to side and his round dark eyes peering down with the acute interest and delicate intensity of a connoisseur. So wrapt up is he sometimes

in what is going on below that he never even suspects the approach of a human being, but continues his watching intently. When finally he sees you a look of wonder rather than fear comes into his large eyes, he spreads his wings and without any hurry or alarm steers clear of you, never once taking the wondering gaze of those eyes from you until he has retreated to a sufficient distance. The Shorteared Owl on the other hand, always hunts in the air and does not seem to have acquired the Barn Owl's picturesque habit. Ten wing-beats (often less) followed by a rest in which the bird glides forward with wings slightly upraised is the formula on which its flight is based. Occasionally it will rise to a considerable height, hanging in the air almost like a Buzzard, but not for long for in these circumstances a wandering Crow or Gull inevitably tackles it. In spite of superior armaments and the fact that it is a creature of the open the Shorteared is not the bird to relish a buffeting or an aery duel with any other bird of equal size. At any rate not during the daylight. At the present moment it is content merely to beat off and when it has been in the air a few minutes pitches down again into shelter.

A single Hooded Crow daily frequents the side of the 'fleet', and with almost unfailing regularity beats up and down the reed-beds each morning for a quarter of an hour or more. It is part of his daily routine. It is easy to tell when he is bent on 'dirty work' for his behaviour then is different from the crow's usual dogged, direct

flight. He seems to hang about in the air rising and falling slowly, now high up and motionless with almost as much poise as a Kestrel, now dropping down almost to the face of the water to examine a hidden corner more thoroughly, then beating back to the beginning to start his examination all over again. His quarry is the wounded and dying bird, and he knows better than anyone where to find it. A pricked Wigeon, or a broken-winged Coot vainly trying to flap away, is ruthlessly cornered and pitilessly bludgeoned out of existence. The shooter's or the hawk's leavings are godsends to the old Hoodie, but there is many a day when he has to fill the gaps as best he can—with garbage and flotsam from the tide-line.

A trio of crows riving the entrails out of a corpse or picking the dull eyes of a stranded fish may not appeal to some people as a noble sight, but at least these Ishmaels live an independent intelligent existence. Old Hoodie is a grand fellow. There is no place for squeamish sentiment in the wild, and only a fool could ever wish to find anything of human justice and tender mercy there.

Sometimes across the green marshes a large brown white-rumped hawk comes floating—the Hen Harrier. Its long broad wings rise slowly and it sails low over the ground, now rolling languidly, now on its outspread pinions hanging light as a butterfly, and then beating onward again. Arrived at the 'fleet' it floats over the tops of the reed-stems with half-raised wings

motionless, half dropping its lanky legs in readiness for a pounce (Coots scatter, splashing over the water into the thickest reeds, but the hawk ignores them). In this style it glides easily over half the reed-bed and finding nothing resumes its wing-beats, and disappears into the distance rising and falling as before. Unlike the crow it never goes back to do the job thoroughly, but continues carelessly in a half-aimless wandering. It has no regular daily beat, but covers an immense territory, recurring in the same places after periods of days or weeks. All harriers seem to be rather haphazard hunters, relying very much upon what first happens to come to hand. Approaching the 'fleet' which it has thus half-heartedly quartered we put up two or three Snipe which go up, grating and twisting into the sky at an enormous rate. One would think them an easy mark for a quick-eyed hawk, but perhaps the harrier is wise in leaving them alone, for the last-minute spring of the desperate Snipe might baffle any pounce. Nevertheless, the Barn Owl is a killer of snipe so why not the harrier? We should not expect this hawk to pursue its quarry in the air, for it is no Peregrine or Merlin, but we should expect some show of spirit. It is possible, of course (although this again scarcely redounds to its honour as a hunter), to suppose that the Hen Harrier simply overlooked the Snipe as they crouched motionless in mud-holes or beneath the bank edge.

As the tide approaches high-water mark the wading birds are driven from the flats and, calling to each other,

fly off in flocks to their own particular resting grounds. In ones and twos and parties the Curlews fly in to a safe islet of salting which is now quite surrounded by the tide and where they are not likely to be disturbed. They continue to come in until the birds are crowded and packed side by side. Nearly all of them have their smooth bills pushed between their folded wings and are already quietly dozing, some balanced on one leg, others lying down in the grass. A number remain awake, carefully preening themselves and watching.

The Dunlins haunt the mud until there is only a last thin strip left, and when that is covered and their bodies awash they rise suddenly and race off to some other spot where they can still continue to feed. The Grey Plovers and Redshanks have simply disappeared. Where they all go to is something of a mystery. It would take a lifetime of observation to be sure of the various movements, and meanings thereof, of all the estuarine birds. Any sense of regularity is soon lost for the times of the tides are naturally different each day, so that the motive of the various movements of waders and flightings of ducks can only be interpreted in a general way. The birds' behaviour is governed by the changing tides and consequently undergoes as many fluctuations.

High tide is zero hour for the waders, but out on the open water it is a different story. Every tide brings with it a fresh visitor from the open seas, some wild explorer finding its way at last into the gentler, calmer waters of

the estuarine bays. Sometimes it is a pair of Velvet Scoters come in from the foreshore for a few hours to dive heavily for clams which they always consume with evident relish. Rarer still, a Red-necked Grebe, its neck now merely tinged with a rusty smudge, swims in on the flowing tide, turning its head from side to side as if it were not sure of its new surroundings. Of our five British Grebes it is the only one which at all resembles the Great Crested in shape and bearing. Even so it is considerably smaller and less obviously long in the neck, but in spite of these physical inferiorities it will catch fish of some size. I have seen the bird struggle with an eel over a foot in length, and watched its struggles as it attempted to swallow the writhing, coiling monster. The Great Crested Grebe is itself frequently to be seen on salt water—even on the open sea, during the winter months—more frequently indeed than is usually imagined. Many of its migrations, too, seem to take place *via* the coasts. It does not seem to mind a change of diet, and calmly preens itself in the roughest seas as though it were to the manner born as the Mergansers are. Parties of Little Grebes are noticed sometimes, too—frozen out, no doubt, from inland rivers and ponds, and an occasional Black-necked Grebe is not particularly unusual in early spring.

Another occasional bird is the Scaup (usually a white-mouthed female) and after really severe periods when the frost holds or the wild nor'easters roar for days, anything may turn up—a stray Eider hopelessly

lost, a bunch of storm-driven Little Auks or a little Long-tailed Duck.

Of the species which haunt the estuary daily, whose presence never excites surprise, one of the most interesting is the Red-throated Diver. It is another of those that are wooed in by the movements of fish and a flowing tide, and often it penetrates up to the very head of the estuary before turning back. With its long neck bolt upright and its ghostly white face tilted upwards, it travels smoothly and effortlessly through the water. At this time of year its face and throat are pure silvery white, not coloured with the reds and violet-greys of summer, while its brown back is stippled with minute white spots. Having found a suitable and safe stretch of water the bird commences to fish, going under in long shallow dives which sometimes carry it considerable distances under water. It emerges only to look about it nervously to left and right and then is under again. For some time it continues like this, on the surface for a few seconds, then submerged each time for ten times as long. In a rough way it quarters the waters in the same way that a Kestrel does a field; it will pass up and down a favourable shore more than twice in a morning, fishing it thoroughly. When at length its hunger is satisfied it makes no effort to return to the foreshore, but dozes off to sleep with its neck and head pushed under the feathers of its back, leaving one white-blinking eye free to watch for danger from above. So it lies cradled on the water, rising and falling

with it, paddling itself with one relaxed foot, and twirling slowly with the moving tide.

The Great Northern Diver, a considerably larger and more vigorous bird than the much commoner Red-throat, is not often to be seen so far up the estuary as this. But past the island, out there where the river-mouth widens into the open sea it may sometimes be seen, rolling through the breakers and reappearing each time a good eighty yards further off. Its ability to remain underwater for long periods is unsurpassed by any other bird; sometimes after diving it will disappear so completely that it does not appear again within view. Doubtless at these times it merely shows its head above the surface for a moment and submerges again immediately. It is a great bird indeed, tremendously long in the body, very powerful in the head and neck, with a stout bill which makes the Red-throated Divers' white stiletto look like a toy. Its greater strength is reflected in its Spartan choice of habitat: only rarely does it leave the foreshore or the open sea. There it travels enormous distances underwater, crossing a bay in a few leisurely dives and with surprising speed, but when it wishes to change its grounds it frequently takes to the air. It rises from the water with surprising ease and is soon under way, flying swiftly and powerfully. Compared with the light, slender-bodied Red-throat, however, its flight looks almost heavy and laboursome. It sags slightly at the head and tail.

At low tide this foreshore is like the estuary, a flat

expanse of mudflat with the sea a low line in the grey distance. At high tide its wide shallow waters are the haunt of thousands of wild geese and ducks which assemble there daily. Their resting ground is so chosen as to be almost unassailable even by the wiliest punt-gunner, and from the shore the great flocks are scarcely visible to the unaided eye. For the Brent Geese this lonely flat is a chosen rendezvous, and packs of them come hurrying in as soon as the tide grows full. Like avian Vikings they come in long strings low down over the water, now splaying out into a broad phalanx, oaring themselves along with clean decisive strokes and muttering among themselves a low flight note 'uk uk uk'. Their black necks and soot-brown wings contrast sharply with the whites of their vents. After reconnoitring a moment they descend on the water where they ride buoyantly with necks erect, but after a few moments they separate, some sleeping, others preening, splashing the water with their wings or dibbling in it with their stubby black bills; while a few still attempt to feed, tipping up and reaching down with their necks for the floating zostera. They are rather quarrelsome birds, and occasionally a pair face each other in threatening attitudes with necks outstretched, or there is a scurry as one bird chases another over the surface. The dull cough of distant gunshot makes them immediately restless. Their necks go up and, closing together again in a dense pack, they swim steadily in one direction, all ready to go up at a second's notice.

Here and there amongst them are a few Wigeon—their usual companions. The smaller ducks swim about quietly and their pink heads and yellow crowns show up delightfully against the background of larger and darker geese. Great packs of Wigeon—the harder the weather the bigger the packs—are a common sight in these waters, and they are constantly hunted by solitary guns on shore and by the deadly (I nearly wrote 'dastardly') punt-guns on the water. When a great flock of these ducks drops in it looks like some dark cloud careering over the horizon. As the hundreds alight on the water the drakes whistle shrilly to each other, but it is not long before they are all comparatively silent and settled. Such flocks as these are worth close inspection for sometimes there are a few slender-necked Pintails in company with the Wigeon.

For a few hours a state of watchful relaxation reigns. The ducks continue to dibble and preen, a flock of gulls rides quietly at anchor and a great silence seems to settle on the estuary. A dog barks far off or a cock crows and the sound comes across the water with a far-away unearthly quality. Then the silence descends again. The late afternoon thickens perceptibly and a pale brassy sun begins to winter in the sky. The grass is crinkled with frost.

Then quite quietly the life of the estuary begins all over again. A pair of Curlews rise from their islet and calling fly off over the water. The wistful modulation of Redshanks begins again, 'kée-lee kée-lee kée-lee',

from a number of birds flying to a spot where the ooze is already uncovered. A Carrion Crow perched on a post jumps down and begins looking for mussels, or jabs at a retreating crab-shell. In a loose straggling flock a number of pied Shelducks pass over grunting. They choose a stretch of shallow water and, being too impatient to await its uncovering, dip their heads in and get what they can. In the gathering dusk they look black and white—it is too late now to distinguish their chestnut bands, green heads and knobby red bills. Soon many of them are paddling in a few inches of water, waggling their heads as they sift the brine for food or guzzling the interior of a shell-fish. All the Curlews scatter now in every direction, flying off noisily in twos and threes. The Redbreasted Mergansers, now far out in the middle of the river, retreat once more with the receding tide.

As the livid light fades, sound gains in importance. On the foreshore the twilight rings with the loud sonorous honking of the Brent Geese as they fly to their feeding grounds. 'Ong óng ók torrók torrók'—it rings over the darkening flat, thrilling one with its wild challenge, its gong-like exultance. The dusk above is filled with the keen whistling of pinions from ducks flighting to their nocturnal feeding grounds. The thin squealing 'klée-a klée-a' of Common Gulls indicates that they are still on the lookout for food, not sleeping. A loud explosive 'frark', a raucous laughterless cry tells of a Heron returned once more to his fishing.





HEN GROUSE SITTING

J. J. Robson [Waskerley]

REDSHANK BROODING CHICKS

J. Kershaw

Day murkens and fades to a black-out. When the stars are shrouded the darkness at night is almost palpable and through the interminable blackness not even one red light winks across the distance. Frost strengthens its grip, extending its silver filigree over the grass and quietly building up its crystal on the water. Everywhere the dead calm and the silence of a freezing earth is complete, but in the estuary a keen whistling or a raucous cry from some nightfaring bird startles the silence, then goes echoing across the invisible waters. The wildfowl continue to wake in their long and fierce struggle for existence.

Chapter II

CHANGES IN FIELD AND COPSE



April is the cruellest month
Breeding lilacs out of the dead land.

So at least a modern poet would have us believe. To a bird-watcher, however, it is often March which seems most uninteresting and unsatisfactory of all the months. His interest is then in danger of a decline. It is too late to expect anything new in the way of winter wildfowl—in fact a distinct thinning-out in the numbers of water birds is evident on every marsh and all along our coasts. It is too early to expect any of the spring migrants—Chiffchaff and Wheatear rarely appear before the last week of the month and the touch of spring in the air only serves to emphasize the bleakness and deadness of winter without being comforting in itself. As the days lengthen and lighten the spirit stirs restlessly like a sleeper on the edge of dawn. New horizons appear and farewells must be said. In the city mimosa-scents wafted from middle-class greengroceries mingle oddly with the vague fœtor of squalid back-street, producing everywhere an indefinable melancholia, a sense as of something unfulfilled. Altogether

a most unsatisfactory time, the fag-end and the new beginning.

In November, another poor month certainly, there are a few clear days when, for a bird-watcher, things grow tolerably exciting. The first Jack Snipe of the winter, or a Shorteared Owl is a landmark in the year's progress. In December we can at least revel in a half-mystic anticipation of Christmas, and the many unexpected avian visitors brought by the approach of hard weather are always interesting. But in March our debilitated minds have not even the joys of anticipation, for a year is dead behind us and spring seems a vague and dangerous promise only.

For a bird-watcher there is this much good to be said of March, however, that it makes us fall back on our commoner birds and appreciate their unfailing presence as we do in no other month. Then only do we begin to realize how lucky England is in having such handsome and distinguished species for its common, everyday birds. Consider what a variety of strikingly handsome and interesting species can be seen during a half-hour's walk from any town: the jet Blackbird, statuesque, with its golden bill and flute voice, the Song Thrush with plump breast exquisitely stippled with brown, the sage Rook whose blue-purple feathers have the beauty of steel (quite a character too), the Jackdaw his poor relation, the garden Wren that independent rusty piece of life, the diffident Robin ready to be friends but never forward, the Sparrows (quite handsome chaps in

their own drab way), pushing and impudent, but like all street urchins lovable, the white Herring Gulls that go sailing in stately lines above the town at the close of winter afternoons. . . . And the Yellow-hammer too, with the floury sulphur-yellow head and orange-brown rump trolling out his wheezy song on every hedge top. What of the Starling, too, one of the very finest and handsomest of any of our birds, and most obviously cheerful and good-humoured of all? Recently the Starling has come in for a lot of criticism and contumely, many writers saying that it is so abundant as to be a pest. Actually the probability is that it has always been a multitudinous species; but in any case, pest or no pest, it is a remarkably interesting and beautiful bird. If you put food down (and this applies equally well on country mansion lawn or city cement backyard), the Starlings will be the first to come and fill themselves, strutting about and snapping at each other in the most lively and animated fashion. Few other small birds dare venture near while they are lording it—the timid Robin and retiring Dunnock wait until they have bolted everything before venturing to pick up the few remaining crumbs. Their spiky, glossy feathers with their violets, greens and blues, their black beaks that suddenly turn yellow at the first sign of spring, combine with their jaunty cocksure swagger to make fine figures of them on the ground, but in the air they lose all their distinction and become merely blunt, stumpy flying machines.

Then there is the Chaffinch with its smart dress, active carriage and ever sprightly call, the Greenfinch so surprisingly beautiful in the sunlight, the dainty trim Pied Wagtail. In winter we have the pretty Redwings, the wary Fieldfares slate-rumped, most statuesque and handsome of all our thrushes: in summer the gentle Willow Warblers and satin-blue sliding Swallows.

Rarely do we pause to consider the variety and the excellence of charm of our common birds. We may get a thrill in identifying a winter Lapland Bunting, dingy though it be, but who would willingly exchange the hedgerow Yellow-hammer for it? And what would our springtime countryside be like if the Broad-billed Sandpiper were in every field but the Lapwing with its joyous tumbling flight and strange ecstatic language absent? There may be a few of our resident species which at first sight seem to fall short of any distinction. The Corn Bunting, for instance, the Meadow Pipit, the Dunnock, and even the Skylark—the dingy little brown fellows which few eyes remark, and which excite little interest or enthusiasm. To a superficial eye the pipit seems merely a weak little feathered fool, the Dunnock a drab, retiring Cinderella of the bushes, the Skylark a singing-machine (the ecstasy of the song is, of course, irresistible: only the completest pagan could miss it)—yet you have but to watch them intently for an hour or two to discover that there is a fascination in their manner of life quite distinct from any superficial charm of habit or beauty of plumage. Recent work has shown

that the Corn Bunting, for example, leads a life of which ornithologists have hitherto been quite ignorant. Even so common a bird as the Rook, which can be watched from many a thousand suburban windows, remains very much of an enigma. The private life of many of our birds, even of many of the commoner ones, is very much of a closed book to most of us.

The winter life of every bird is almost entirely taken up in the search for food, in self-preservation and in sleeping, 'a life of sensation rather than of thought'. During the winter storms the search for food develops into a bitter struggle for existence, in which thousands annually fail, but for the most part it is a quiet, sociable and uneventful time. Each individual bird mingles in the flock with others of its kind and we may be fairly certain in thinking that each is comforted by the presence of its fellows.

In February and to a greater extent in March all this is changed. The annual growth of the bird's sexual organs from complete dormancy to an ever insistent predominance brings with it the most revolutionary changes in behaviour, and from March until early autumn the bird's life, instead of remaining at its dead winter level, goes through a constantly changing cycle of activity.

The first stage sees the gradual dispersal and division into pairs of the flocks. From leading a wandering life in the open the birds suddenly become addicted to certain restricted types of ground, sometimes remaining

for hours together in what is for them a mere corner. The Tree Sparrow grows amorous of the pollard trees, exploring their nooks and crannies with completest fascination and enjoyment. Jackdaws leave the streets and hug the church tower chacking to each other as they fly in and out. On the lake the Great Crested Grebe is now always to be seen swimming in its chosen stretch of water. The Green Woodpecker, usually the most carefree of wanderers remains continually in a sheltered corner of the wood and there aimlessly hacks out a dozen and more holes for the sheer love of the job. Instead of wandering about the countryside in parties or vast flocks each bird tends to settle down in a particular area, and in many cases evinces a desire for complete independence and isolation. Of this more after.

Courtship in all its various fantastic forms is soon begun and continued more or less unremittingly until all the individuals capable of breeding are paired off. Gestures, notes and antics seen and heard at no other times of the year are the outward manifestations of the dynamic tumult of sensation and emotion by which the bird's life is at this period governed. These sexual displays, which are fixed in the case of every species, usually take the threefold form of a special kind of flight, a special vocal (or in other ways audible) expression, and some kind of physical posturing. Male and female Magpies undulate through the sky rising and falling together in an aerial switchback like lovebirds

in some Japanese ceramic. The Ring Dove breasts the air in graceful rolling dives and noisily claps his wings. Up and down the twilight woodland glades the Woodcock flies with owlish solemnity. On the moors the Curlew rises trilling and slowly descends with his body all quivering: the Skylark runs in ever widening rings in the sky, and the Fulmar returns from the ocean to careen and sail up and down the cliff-face. In fields anywhere the Lapwing loops the loop and comes careering down, turning and tumbling almost to the ground, then flies up again wailing his frantic spring song.

Most of the actual courting is done, not in the air, however, but on land or (in the case of water birds) on the water. At least the winning and choosing is done there. The cock Sparrow, for example, trails himself through the dust with wings outspread, chirping and squawking after the female bird in most obvious excitement. In the tree-tops Rooks bow profusely fanning their eloquent tails and cawing continually. They give the impression that some kind of avian gallantry is necessary to win the day. On the moors the Blackcocks resort to more downright methods, the males meeting shortly after dawn to fight together on a chosen ground. As a rough general rule the result of these forceful exhibitions seems to be that the victor carries off most hens.[1] On the open water the little

[1] In view of the complexity and promiscuity of the sexual relations of Black Grouse this statement is perhaps a little too 'rough'.

Teal develops a kind of nervous tic, bobbing his head backwards and jerking his hindquarters up in a sudden convulsive movement. The drake Goldeneye has a similar but even more fantastic habit, and sometimes when his head springs back to touch his outspread tail it looks as though he were endeavouring to break his back. Often the female bird gives the outward impression of being unmoved and uninterested in the exhibition of the attendant males, but in certain cases she plays an equal, or even a forward part in the ceremonies. The female Great Crested Grebe faces the male bird and loosely waggles her head before him, or touches his bill. Female Goosanders too seem to be equally as forward as the males in wooing, and sometimes a pair will pursue the handsome drake, sipping water and raising their bills, or suddenly rushing over the surface of the water after him. He, if he is feeling like it, may feel tempted to respond, raising his handsome head and revealing his exquisite salmon-flushed underparts.

The peculiarly extravagant antics of the male birds has led many to assign undue importance to the male sex in bird-life. The females are quieter and less obviously demonstrative, but we shall gain only a distorted view if we consider their actions as of lesser importance than those of the males. The truth is that their behaviour is much the more difficult of the two sexes to understand.

The vocal side of the courtship has been rather over-

estimated by writers on bird problems. In most cases the audible expression of the bird's emotion has little visible effect on the final result of the proceedings. But the fact that it is able to express itself in some way is in itself useful, for the bird must have some kind of safety-valve for emotions which at times reach almost to bursting pitch. In the case of those species in which vocal expression has become vocalized as a song, however, it is certain that the male's voice is used in the actual courting display. Once the two have become paired the male's singing is of paramount importance, both before and after the eggs are laid. Nobody can doubt that who has watched a pair of Dunnocks together, the cock with wings drooping, pouring out his song with shrill passion, the hen shivering her body in a trembling ecstasy at his music.

The outward behaviour of these displays we can see with our eyes, but what they really mean to the birds themselves we can only vaguely surmise. To a large extent they may be taken as evidence of that bounding *joie de vivre* which so strongly characterizes the life of birds in spring. Sometimes when they are quite alone the males in the exceeding fullness of life will often posture and display to the empty air. For short periods their impulses become quite uncontrollable, and their only outlet is via these instinctive mechanical antics. The general purpose of the displays is obvious to anyone, but beyond that we cannot safely generalize. There is no fixed rule which will tell us where and

when the flocks will split up and pair off. Certain species pair for life. Some divide into pairs before the flocks disperse, while others scatter into isolated individuals before they are paired. Of the migrant birds some pair at the conclusion of their northward journey, while others court and pair before the migration is even begun. There is evidence to show that it is possible that even within a single species, pairing for life, annual change of mate, polygamy and promiscuity—in fact most of the irregularities of irresponsible amoral creatures—will be found. It is not safe to dogmatize anywhere, even in the case of a species which has been continually under observation.

Prompted, no doubt, by the appalling but inevitable confusion which (from the standpoint of the biologist) the various species appear to present, certain writers have endeavoured to clear up the mess by evolving a theory—a kind of general formula to explain everything. Observing that birds divided into pairs, each of which settled down in a restricted area, and that individual pairs of many species maintained themselves in a state of isolation, driving off others of their own kind, these writers seized upon facts of this kind (commonplaces hundreds of years old) and generalized them under the imposing title of the Territory Theory. I have shown elsewhere that many a hole can be picked in the theory as enunciated by those writers, and have endeavoured to show that there is actually no need for a theory at all. Anyone with eyes can see that several

species keep territory. There is no possibility of denying that. Territory is a fact of bird life, not a theory; but it is a fact upon which we cannot usefully or safely generalize.

The reasons why some birds settle in a fixed territory and drive off all comers seem to be very different from those which the theorists have suggested. Watching Shelducks one notes that the drakes grow vindictive and pugnacious among themselves before their particular territories have been chosen. Even when they are on common ground a particularly strong drake will rush after the others, threatening them one after another with neck lowered and outstretched, and chasing them further off. Much of this kind of intolerance is probably due largely to the intensity and conflict of emotion in the bird. Probably the sex-urge, the desire of one for another, has more to do with isolating the pairs than any biological necessity for independence. Further enquiry has shown that the question of food supply and the nature of the territory taken (which the theorists argued were inter-connected), have no relation at all.

In any case we now know that territory is a much vaguer, more elastic thing than the theorists originally gave us to understand. Individual pairs of the same species may have widely disproportionate territories, which is in itself an indication that territory is largely a personal matter for the bird. In some species half-colonial and half-territorial habits are observed. Instead of scattering as widely apart as possible so as to

maintain completest isolation and independence, individual pairs of such species (the Great Crested Grebe, Montagu's Harrier and Redshank for examples) will band together in a restricted area and form territories side by side like married couples in a row of houses.

We have no sooner examined the worthless simplicity of the theory then, than we are faced by that same varied confusion with which we began. To begin with the theory was viciously biassed by the assumption that bird behaviour was always governed by a kind of biological utility which mechanically worked out for the best. The more we examine it the more certainly we conclude that its positive value is nil.

The repercussions of the theory have, however, been more valuable. Wherever ornithologists have met or written the question of the Territory Theory has been a constant source of argument. The elements of truth which it contained and the brilliantly scientific expositions of Mr. Eliot Howard and Mr. E. M. Nicholson were sufficient to interest everyone. Only recently has it been suspected that the actual contents of the theory may be too flimsy to be worth bothering about, and that it may only be falsely scientific. A scientific mind, had it only the necessary backing of field experience, could pick the theory to pieces with great ease, could prove the theorists to be misguided on several points, but could not deny the tremendous effect which it (its originators rather) has produced among people interested in bird problems. More than any other thing it

has produced a stir quite unprecedented in the slow ornithological world. It has given bird-watchers something to argue about, something to find new facts about, provided them with a kind of framework to hang their observations on, given them an incentive to watch birds in springtime with a determination and an incisiveness which was never exhibited before. Old Gilbert White and Jeffreys never watched their birds so carefully as Mr. Howard has done, nor did either put in so much spadework of deliberate thinking as Mr. E. M. Nicholson has. They did not know their birds half so intimately as many an unknown bird-watcher or bird-photographer to-day knows them. The high standard of modern field observation, the entirely healthy enthusiasm of modern ornithology is due in no small measure to the new life infused into it by the crude enunciation of a (shall I say quasi?) scientific, half-truth theory.

New fields of discovery seem to have opened in front of us as a result of it. When they had reached the point when they began to think they knew all there was to be known about birds, it was suddenly brought home to ornithologists that they knew less than they thought, in fact that they knew very little indeed. The necessity and the opportunity for unlimited field-observation and other kinds of work has since then impressed itself upon everyone who pretends to be interested in bird life. Though the old theory may very well be scrapped entirely now, we have still to learn how various species (and individuals of the same species)

hold their territories, what part it plays in their lives, where it begins and ends. To do this we must begin our work early in February at the first signs of restlessness and change, and watch our birds with the greatest care in March, throughout the period leading up to the laying of the first egg—that important period of manœuvring and posturing when the bird finds its mate and undergoes those preparations and developments which occur before the actual task of rearing is begun.

The very month, then, which we began by contemning as so unexciting, so comfortless and empty, turns out to be the very one of all the twelve in which the most fiercely observant work must be done and the most significant as well as the most intense behaviour studied. It is certainly ripest of all in opportunity. The Blackbirds fighting on the lawn become actors on a dramatic stage of which the whole bird-watching public is the potential audience. Sparrows chirping and tumbling along roof-gutters as they prosecute their little loves become linked with a theory and a problem, and their actions gain in significance the more we watch. To gather facts about their behaviour now seems a worthy thing to do, and a first-class life-story of such a bird becomes of infinitely greater intrinsic worth than all the superficial accounts of rarer and more exciting species.

Mere bird-lovers can begin admiring their pretty feathered friends at any time of the year. The true bird-watcher is born in March.

Chapter III

OUT ON THE FELLS



The Cross Fell range of hills comprises the most extensive and the most wild stretch of real highland in England. Perhaps when this sentence comes to be read there will be some raising of eyebrows and some consultation of the maps, but it is nevertheless a fact that not even in Wales, and certainly not in the Lake District, is there to be found such an expanse of country over the two thousand feet mark. As for wildness most parts of the Lake District are tame compared with it. The enormous blunt mass of Cross Fell itself is surrounded by miles and miles of high ground and so does not stand out pre-eminently among the surrounding Pennines except on the west side where it bares its bald grey summit and barren flanks to the pleasant Eden Valley. Your travelled Englishman, blasé and cosmopolitan, may pretend to despise his native hills, having seen the histrionic altitudes of his Matterhorn, or the distant glory of the Himalayas, but it is hard to believe that anyone who really has England in his bones could entertain anything but respect for our north-country moorland. Actually Cross Fell itself





GREAT CRESTED GREBES—A LOYAL AND AFFECTIONATE COUPLE

J. H. Owen

deserves to rank with mountains much more famous. for it is higher than Cader Idris, equally as lofty as Great Gable and a few paltry feet lower than cloud-scarfed Helvellyn.

Perhaps you must be a north countryman to appreciate in full this wild sweep of moorland, the bleak stretch of fell, or revel in the biting wind that whistles across these grey summits. There is little that is picturesque to attract you unless it be the mightiness and hugeness of it all, the mistiness of distant heights, the chequer-board fields in the valley below dappled green and yellow by drifting clouds, and the great silence of the brown moors. There is a freedom among these great spaces which is as exhilarating as the air one breathes on the heights, and which is accentuated not tempered by the frown of grey crags and the forbidding misty desolation of the far horizon. In winter, even when they are free of a snow-mantle, the moors are practically deserted. The Grouse, now strangely silent, go up from among the heather as they do in August, and a few Meadow Pipits too, but for the most part there is little life at all. Such winter visitors as do come are usually strange, unusual species. Snow Buntings, white-winged and tinkling, search for seeds among the rocks of the scar, dancing up over each other's heads each moment and probing into sheltered corners among the stones. Heard from below their thin soft bell-like notes come ghost-like and vague. Occasionally a handful of dark Lapland Buntings will

be found there too. Where the crags drop into precipices mid-winter Buzzards may well be expected even if they are quite unknown there in summer. On clear frosty days no sight is finer than one of these great birds hanging and sailing around a summit with the sun glinting upon its silvery underparts and the cold septentrional sky showing clearly between the outstretched curving tips of its great tawny wings. That rare foreigner the Roughlegged Buzzard is also a winter visitor to the moors, and is different from the commoner, native species in more than plumage. It seems to be a haunter of the lower moorland, the level or rolling stretches of heather and swampy turf, where with desultory owlish flight it beats low over the ground seeking rabbits, small game or carrion. It is a heavy ashen bird, and in winter at least seems to exhibit little of the common Buzzard's mastery of the sky. The Raven also, in summer a bird of the high crags, habitually scours the open moors throughout the short bleak daylight in search of any prey legitimate or otherwise. A pair bent on 'dirty work' will search a moorside with strictest method and meticulous care, and not much escapes their wicked black eyes. At night they retire to their rocky fastnesses. If a human being appears among the heather they have the situation well in hand, for without appearing to notice him they give him a wider berth than any bird. If they are on the move they may announce their annoyance and suspicion—'hrrog! hrog hrog'—a deep throaty sound, a

threefold croak that is at once a question and a challenge.

Heard from the depths of the sky on the wild winter moorland it is one of the grandest and most sublime sounds that Nature provides for human ears.

Naturally such country as this attracts a distinctive and interesting breeding bird life when the long winter eases its bitterness and the softness of spring begins to be felt even on the heights. The ground, however, is barren, the soil in places scarcely covering the rock, and so the birds are nowhere numerous. And apart from the Dotterel, which still breeds on the highest summits (one of the very few remaining stations in Britain), there are few really rare birds breeding in the Cross Fell range. The Buzzard probably never bred here in any numbers, for there are not many safe breeding cliffs and the landscape is a little too bleak for the bird's natural liking. Nowadays it may be doubted whether there is more than a single pair of these birds breeding annually in these hills, although Buzzards are frequently seen soaring over the Cross Fell precipices. The Peregrine Falcon, too, has abandoned many of its former breeding cliffs although an old pair still manages to survive here and there and on the whole there is perhaps more ground for optimism than for pessimism. Of recent years there has certainly been a small but quite definite improvement in the status of the Raven, a bird which has been unjustly persecuted and hounded out of its breeding territory for many a long

year. It is still very far from being a common bird here however. The shepherd will not hear a good word for it, and certainly he ought to know. It may be argued that much of the ill feeling against the bird is due to prejudice and traditional superstition, and that most of the evidence against the bird is sketchy and unauthenticated; but experience shows that there is very little that the Raven is not capable of. There is no doubt whatever that a hungry Raven will kill off a sickly lamb in the same way that Woodpeckers will attack diseased and dying tree-trunks. I have myself seen one clumsily attempt to strike down a flying Red Grouse, stooping at it awkwardly and ineffectively, like some hopeless Buzzard. But the fact that there is no such thing as conscience in the wild is no reason why the birds' eggs should be constantly smashed, and poisoned carcases and poll-traps (*supposedly* illicit) set for their destruction. Ignorance and superstition, and destructive hatred can only be combated by direct methods. The old shepherd loves his sheep, for they are his living, and when he sees 'owd corbie' fly up from a corpse of one of them he puts an end to him sooner or later as best he can. The bird-watcher, on the other hand, loves his Ravens for they are grand birds, and when he sees them being persecuted it is up to him to stop it as best he can. It is no use trying to remonstrate or to prove the innocence of the bird: in an avian law-court inquiry the Raven would not have a leg to stand on. The behaviour of the bird is beside the point—from

the ornithologist's point of view it matters nothing whether or not it is guilty of the destruction of which it is accused. So that the fate of this species, and others threatened by inimical interests, depends upon which interest is strong enough to be really influential. From this diplomatic, if ruthless, point of view ornithologists must see that in the long run their opinions and desires come out on top.

Whether the recent improvement in the numbers of Ravens is in any way due to modern methods of bird protection is very doubtful indeed, but the fact is that they now breed once more at several points in these hills where a few years ago they were unknown. The numbers in county Durham must be very very small, but several old haunts in Yorkshire, Westmorland and Northumberland have been returned to. Yet how numerous are the places with names suggestive of ancient breeding haunts—Raven's Seat, Ravenstonedale, Ravenscar, Ravensworth and others where the bird remains no longer, not even as a memory.

Nevertheless there is still many an interesting species breeding on the moors even though the Hen Harrier, Dotterel, Falcon and Buzzard are to all intents and purposes gone.

Even early in January a spell of mild balmy weather sets the Red Grouse thinking of spring, sends them scattering from their packs, makes them bold and quarrelsome, and often causes them to pair and settle down in a territory. Intermittent snows and the tardi-

ness of spring, however, send them packing again and usually the cycle of breeding activity is not fairly begun until March. By then they have all become fully vocal, and many of them are quite obstreperous, taking short flights at the end of which they rise breasting the air like a courting Ring Dove, and descending almost perpendicularly with feet outstretched on to a tussock. The moorside rings with a constant victorious crowing. Male birds having won their mates grow very jealous of their small territories, and there are continual squabbles between adjacent pairs. So over-mastering is this new sense of possession that the birds will almost refuse to leave their little plot of ground, but creep round in a circle through the heather allowing one to approach within a very few feet rather than go up. At most times of the year the Red Grouse endeavours to keep a fair distance between itself and man, but in early spring it will allow him to approach within an absurdly easy distance. The cock grouse becomes a most comical fellow, developing new notes of defiance and challenge full of sound and fury, and nothing in the whole bird world (not even a pair of Water-hens) can be more amusing than an encounter between two jealous males. One bird finds another male trespassing on a corner of his ground. Flying towards him he alights and advances threateningly over the heather with neck stretched out in front, and the red wattles above his eyes starting out of his head in most alarming fashion. 'Ke-béer ke-béer,' he calls, challenging the

other to move another step. The other, surprised but guilty, will not shift his ground in vain-glorious retreat, and answers valiantly with a hoarse cry of defiance slightly different in utterance and meaning, 'bekóor be-kóor.' Advanced within a foot or two of each other they stop, and if looks would kill there would be no survivor. But that is all. Perhaps the offender, looking for some means of escape, turns his head a moment. In a flash the other flies at him, buffeting him with wings and claws, and for a few brief moments the two roll over on the ground, then separate and face each other again, wings lowered. If one thinks it can seize an unfair advantage of the other it does so and there is a short engagement; but if not there is merely much threatening and abuse, and then one bird flies off. As is the case with most birds there is actually very little fighting in it, and no damage is done. Like two small boys having a squabble there is much threatening, surly defiance, a great deal of wordy combat, a few blows, and then the whole affair fizzles out.

By mid April the females have begun to lay, and from then on the cock grouse take a back seat, for the hens do all the incubating themselves and are practically responsible for the entire rearing of the young.

The Black Grouse is thinly and locally distributed throughout all the northern Pennines, but little will be said of it here. I have never been able to watch the famous courtship performances of these birds so adequately described elsewhere by more than one first-

class bird-watcher. Even in spring the adult Blackcocks seem to keep very much to themselves, and they are not confined to a limited territory as the Red Grouse are. After the early morning at the 'lek', where the males assemble to compete and battle for the hens, all excitement seems to leave the Blackcock. The rest of the day he spends wandering over the moor for food with his collection of Greyhens, or (if his efforts have met with no success) in solitude.

Of all the birds of the spring moorland the most common without a doubt is the Meadow Pipit. Its weak tittering notes as it flutters up out of the heather in front of one, constantly break the silence. At most times it is a foolish little bird and uninteresting, but we must give it full credit for its dramatic little song. Like its cousin the Tree Pipit, though not from a height, it throws itself high in the air and when it nears the apex of its flight begins to sing, continuing as it falls and concluding when it is perched once more. The song is like the Tree Pipit's in many ways, but definitely inferior, less intense and not so pure.

Here and there by the edge of the stone moorland wall is a colony of Wheatears. A corner where the grass is cropped close and honeycombed beneath by rabbits, where the ground is protected from the winds by the surrounding slopes, is a favourite spot. Wheatears will range very high and will be found sometimes among the highest crags, where their sharp cheerful little song sounds weak and trifling among the vastness of boul-

ders and precipices. Not many of these birds reach the higher land immediately after arriving in this country in March, for they hang about a good deal in unusual situations on the way—open fields, golf courses, patches of waste ground, cliff-tops and a thousand and one other localities where they never intend to breed.

Thence in their own good time they arrive at their breeding stations on the lower moors. Their miniature warrens are full of burrows and there in nooks and crannies of the rocks the birds build their little grass nests and lay their pale speckled eggs. There the smart grey and white cocks and browner hens trip along on the sheep-cropped grass, often taking sharp little flights in which they turn and twist over the heather, always showing their flashing white rumps.

For another small moorland-breeding bird you will look long in vain. According to every textbook the Twite is to be found breeding on the Pennines of northern England. Personally I must confess that I have never even seen the bird there, nor do I know, among an acquaintance which includes several men with life-long experience of the moors, of any ornithologist who has.

Granted the bird is far from being easy to identify, and not conspicuous, it must nevertheless be much rarer on the Pennines than the authorities have been led to believe.

Curlews bubble and trill ecstatically and pairs fly round after each other high in the air calling passion-

ately to each other, or stand on guard near their chosen spot. The male birds begin to trill and bubble as they plane down to the ground, and when alighted their bodies continue to tremble and shiver with the ecstasy of their wild song. Unlike the grouse, however, they remain quite as wild as ever, and though they may be deceived by a photographer's hide in front of their nest, they give anything which they recognize as human the widest berth. Evidently their skill in avoiding man during the nesting season is proving profitable, for nowadays Curlews are to be found everywhere in the north. The moors are so well stocked with pairs that many of them have been crowded out, and the birds now commonly nest in lowland meadows, a thing which is said to have been quite unusual twenty years ago.

While they have eggs Curlews are content merely to avoid man, and retreat silently before him. When an intruder approaches the territory, whichever bird is on guard from a chosen point of vantage gives vocal warning to the bird on the nest (which may be either male or female, for both share in the duty of incubation), and the latter, leaving the eggs, makes off along the usual path through cover and, when it is at a safe distance from the eggs, flies up calling as if suddenly disturbed. Anyone uninitiated into the workings of the wild brain would consider such instinctive action intelligent, and certainly the Curlews' manœuvre is on the face of it indistinguishable from purely intelligent

behaviour. When the young are hatched the female's feelings frequently so overmaster it that it keeps flying round and round overhead, calling anxiously until the intruder is gone. No doubt the calling serves to make the chicks lie close, although this seems a trifle superfluous, for the youngsters are instinctively well able to conceal themselves. Sometimes the demonstration of the parent is so hysterically frenzied as to be positively painful to the observer. I remember one female Curlew on to whose territory I had ventured. Her eggs had hatched several days before, and the nest was now abandoned. All the time I was in the area where the chicks were hiding the parent bird flew round calling and screeching continually like a terrified horse or some animal in the greatest conceivable agony, in a frenzy of fear, hoarse as if with horror. So loudly did its terror and aversion sound against the lonely hillside, that the whole valley seemed to be filled and re-echoing with it. It made me feel almost guilty, like some person observed on the scene of a crime—so much so that I had little relish for looking for the chicks, but cleared off and left the hysterical mother to calm down again.

Curlews prefer those parts of the moor where there is tusky grass and peaty swamp as well as heather. The Golden Plover, however, often nests right in the heart of the heather just as the Red Grouse does, but prefers those bare blackened patches where the moor has been burnt. During the winter this bird haunts lowland ploughlands and mudflats, feeding in flocks with Lap-

wings, and resorting during the brief spells of hard weather to the salt-water bays of the estuaries. Early in the year the flocks begin to move north and in March they return to the high moors, first haunting the foot-hills and neighbouring pastures for a week or two, and then splitting up into pairs, each of which selects and guards its own chosen plot. By mid April all the pairs are distributed and settled, and flocks seen after this time may safely be counted as non-breeding birds. The male Golden Plover with his black face and gorget, his white eye-streak and flanks, and his dark upper parts stippled and spangled with brightest yellow, is as handsome a bird as ever one may wish to see. But the bird has a spring lovesong of three notes which is even more remarkable than his feathers. Mounting high into the sky above the moorland it seems to hang in the air, scarcely moving forward at all, with its wings rising high over its back and falling slowly and languidly. This deliberately slow movement of the wings rising and falling is quite unlike the bird's usual swift racing flight, and is an entirely sex-inspired performance. If you knew nothing of this spring flight and saw the bird flying slowly round in a great circle over the moorside you would flatly refuse to believe that it was a Golden Plover. As it flies it utters a soft, melancholy 'too-lée-oo'—a threefold whistle of such pleading wistfulness that it seems the very voice of the spirit of the hills. 'Too-lée-oo'... it intensifies the loneliness, the wildness of these misty wastes and the silence of the rocky solitudes.

On the ground the Golden Plover will watch you as you walk over its particular area. It will retreat before you, stopping now and again to watch you and occasionally flying up with a whistle and coming down in another portion of the territory. There it watches again. It betrays no sign of emotion and makes no exhibition of itself when you are 'getting warm'. It must be terribly anxious at times, yet it seems to control itself. There is none of the Curlew's screaming, none of the desperate tumbling overhead and frantic callings of the Lapwings. It keeps its secret and holds its ground.

The little Dunlin and the Snipe, two smaller wading birds which also nest on the northern hills, are quite undemonstrative. When they have eggs they sit so tight that one's only hope of discovering them is by walking right on to the sitter. Then the bird shoots up from beneath one's very feet, and does not return until the coast is clear. The famous 'drumming' of the Snipe is one of the commonest sounds of the spring moorland and may be heard by night and day. The birds fly round, weaving mazy patterns in the sky, rising and falling on a wandering switchback, and each time they fall they produce that strange vibrating, quivering sound which has made the Snipe so much the object of discussion. The performance seems to be largely intended for the benefit of the female below, and sometimes she will respond from the ground with a squeaky pedantically marked 'chipp eh chipp eh chipp

eh'. Watching her there amongst the marshy grass with her long bill opening and closing spasmodically, seeing her quixotic pose, her plumage strangely mottled and eyes like drops of deep brown water, one realizes how little one knows about the life of a bird. The enigma is so baffling that one is seized with a sense of futility in attempting to face it. But it is an enigma which has got to be faced, for without it the search for the wild becomes meaningless. And how fascinating an enigma!

Another wading bird which may be found nesting everywhere on the moors is the Redshank. It is a bird which has increased considerably within memory, and now nests regularly in many a place where it was once a mere autumn or winter visitor. The moors are far from being its sole nesting habitat—in fact it breeds practically everywhere where there are open spaces and water. To what such an increase may be attributed we do not certainly know, although the Redshank is a wary bird and well suited to our ideas of what a progressive species ought to be. Like the Curlew and the Lapwing it is a hysterical bird, and when its territory is approached it has a special note which indicates quite plainly to the intruder, whether human or otherwise, that its presence is very much resented. Sometimes when the young are in danger the female will fly to within a few yard's distance and perching on some wall-top will call frantically. Even in spite of these warnings the young will sometimes break cover and reveal themselves. They are excellent runners even

over rough ground and their legs are extraordinarily well developed even when their owners are only two or three days old. They look like miniature ostriches.

In early spring the male Redshank is one of the most amorous of birds, serenading his love with all kinds of passionate flutings, running after her on the ground trilling, spreading and raising his white-bordered wings, and generally bowing and scraping to her. She, modest female, merely trips a few yards further off, then stops, allowing him to follow, content to lure him on while appearing outwardly indifferent to his attentions. Sometimes before pairing is completed one will often see a female pursued by a string of males all piping and fluting at her tail with suppressed excitement. Eventually one is chosen, and leaving the others the pair resort to a suitable breeding ground where other Redshanks are already settled. In a way this breeding ground of the Redshanks on the moor edge is a kind of colony, but a colony where individual rights are paramount, and where fellow-feeling seems to be non-existent. The males rising in the air over their chosen ground poise on quivering wings, trilling with wild joy and passionate emphasis—a lovesong and a declaration of independence. If an intruder flights into the territory, as he sometimes unwittingly does, the quivering bird is upon him with a rush, fairly yelping him off. Or, if all is well, he will glide still fluting and trilling to the marsh, there to run and show off to his mate.

When the young birds are hatched the parents lose

something of their wild joy and freedom. Instead of being vigorously vindictive they grow anxious and distracted when their nest is approached by man. Throughout the whole period male and female stick closely to each other, sharing the duties at the nest and being almost equally solicitous for the safety of their young.

To turn now from Redshanks to a very different type of bird, the Ring Ouzel. The Ring Ouzel, haunter of the rocky valley, the steep ghyll and moorland quarry is a bird with a very definite character. It makes an impression upon the mind as clean and hard as diamond. Why it was never called the Mountain Blackbird is rather a mystery, but not an unfathomable one, for its affinities are with the Missel Thrush rather than with the garden and hedgerow Blackbird. It has the Missel Thrush's intolerance of man. There is something of the misty moorland spirit and the bitter tang of mountain winds in the bird's make-up, and the harsh brusqueness of its 'tak tak' of alarm reflects it. Its wild, rough-hewn song—a few simple crude notes—has none of the urbane improvisations and pure reflective utterance of the Blackbird, but a good deal of the rough careless boldness of the Stormcock. By ordinary standards it cannot be called a fine song, this plain emphatic whistle from the rocks where the burn comes tumbling out, but it is as expressive and inevitable there as the sound of pibroch in the Highlands, the last post at a soldier's graveside, or the statement of a theme in a

Beethoven symphony. It is impossible to judge a bird's song by any musical standards—its expressiveness in its own surroundings is what ought to determine our affection and admiration for it. A Nightingale singing among these stones would be quite horrible, a Blackbird presumptuous and blatant, and a Blackcap . . . unthinkable.

The Ring Ouzel itself is full of a kind of harsh vitality—more vigorous and abrupt in its movements than the Blackbird, which usually likes to take its time. It is not particularly a bird of the heather moors—in fact it prefers the stony slopes where brown moor grass grows between the rocks, and at times it ranges very high indeed. Like the Blackbird, more so perhaps, it is content with a small plot of ground. It will remain in its little ghyll making short excursions for food only until August, before it ventures out over the open moors or across to the other side of the valley.

It may be only a melancholy fancy which sees the Ring Ouzel as a declining species in England, but on the Northern Pennines at least it is a very local and thinly distributed bird. I do not know whether modern bird-watchers in Hampshire still see parties of these birds in autumn as old Gilbert White used to do each year. On the face of it it seems rather improbable. All the evidence seems to point to the fact that here is another species which was once commoner than it is to-day.

Always it seems a pity to stay long in the ghyll, or to

prowl along the pebbly streamside where the Sandpipers flit and the Dipper splashes about among the stones. One must be ever out on the tops with the distant horizon low on every side, and the wind of the high places blowing in one's face. There are miles and miles of this kind of country which have never been trod by a reliable bird-watcher, where scarcely anyone goes from year to year. There might be hawks other than the little Merlin breeding there and no one knowing it. Some day, no doubt, the slow but majestic Hen Harrier will breed once more on these moors. The late lamented George Bolam, fine old north country naturalist, was convinced that the Montagu's Harrier still breeds in Northumberland, and although he had no proof of it I, for one, would agree that it is more than an idle fancy.

Nowhere in all our country do birds so enhance the natural scenery as here. The presence of certain species here changes the bleakness into wildness, converts a forbidding scene of desolation into a haunting mysterious wilderness, so that one grows to love each rock, village and hill . . . the bald stretch of the Mallerstrang precipices, the bleak outline of Wild Boar Fell, the peculiar silence of the moors in Teesdale . . . the woods by Appleby beneath the mighty side of Cross Fell itself, Stainmore, Mickle Fell, Cauldron Snout, Romaldkirk, Barras—venerable names. Westwards the line of fell faces Eden vale falling field after field to the Solway. Stone walls measure it mile after mile, and old stone

villages, each with its stunted church, lie hidden along its flank. Here and there isolated farms stare silently from the moorland across woods and parkland to the misty bloom of distant Lakeland hills—lonely Blencathra ominously blue, and the huge mass of Helvellyn supported north and south by Great Dodd and old Dollywaggon. It is my own country, and therefore best and most noble.

tionate couple. They settle down in a corner where the reeds offer suitable shelter for their watery nest. Other grebes are driven away from the neighbourhood, and the immediate environs of the nest are such strictly forbidden territory that even a prowling Moorhen or a blundering Coot is hissed off with a fierce thrust of their dangerous darting necks. Whether both birds help in the building of the watery pile of reeds and sedge which is their nest I am not sure, but once the eggs are laid both share the duties of incubation and caring for the young. They take turns in brooding, and when not actually on the nest one grebe will mount guard on the water outside, giving warning of the approach of a human being so that the bird on the nest may have plenty of time to cover the eggs with weeds and make as furtive and unobtrusive an exit as possible. A rapid chattering 'kukerukukuk' soon fetches the sitter off and the pair swim about together on the open water until the danger is gone. Unlike most bird-husbands the male is as pushing and as eager as the female to be on the nest. Sometimes in fact he grows tired of waiting for his turn on the eggs and swimming behind his mate will poke her with his bill—a broad hint that it is time she went off. When the first chick arrives it is not unusual for one of the birds to take charge of it while the other broods over the remaining eggs. The male grebe will carry the fluffy little chick on his back, even diving with it safely ensconced beneath its wings. Usually, however, the female bird retains the youngsters about

her at the nest while the assiduous male fetches suitable small fish and water delicacies for their consumption. These he hands over to his spouse, touching her bill and loosely waggling his head as in the old courtship days of March. Then he swims through the bases of the reed stems and away on to the open water for more.

The harmony with which the pair work together, each playing into the other's hands like skilled partners in some complex game, is admirable. There is a grace and tenderness in their inter-relations and a natural nobility in all their actions which fill one with spontaneous admiration. Even the striped and comic little chicks bobbing about in the water or scrambling on to their mother's back, fit into the scheme with that delightful ease and neatness of which instinct is the only originator.

The reeds wherein the grebes nest are yellow and sere with the green succulent stems of a new year's growth already two or three feet high amongst them. Spidery 'horse-tails' and trailing weeds are growing fast in the water. Newly come Sedge Warblers toss themselves up out of the cover and chatter out their songs, stuttering as they stumble. Others perched sideways on a dead reed seem to be declaiming angrily, their crimson throats showing vividly in the sun, as they open their mandibles wide to utter a few pure notes. Here and there beneath them sits a solitary Coot quietly brooding its eggs on its bulky nest. The majority of the male birds are out on the open water clumsily

splashing down for the green water-weeds on which they feed. There is nothing graceful or delicate about the Coot, but he is a bird with a definite temperament and is a peculiar character in his way. Although not adopting a definite system of territory (several pairs will at times nest very close together) the Coot is a most quarrelsome fellow. He has in fact more than a drop of bad blood in his veins and in summer time will savagely worry chicks of other water birds, seizing them by their necks and immersing them in the water until they are drowned.

For the most part perfect peace reigns in the reeds where the nests are. An occasional scuffle, perhaps, but for the most part a dignified silence or questioning calls from one bird to another. Among the reeds the Coots are a skulking god-fearing kind; but on the open water a few yards from their nests they become as bold as brass and will fight like terriers. One may watch with real amusement the manœuvres of a bird preparing to set on another swimming harmlessly by—the stealthy crouch, the neck low on the water and the sudden rush at the finish. For a few moments the air is filled with loud cries of expostulation and defiance, the water is splashed high as the pair strike at each other with feet, wings and bill. Frequently the mate of the assaulted bird will hurry to its assistance but usually she has scarcely appeared on the scene before the first bird's fiery spouse comes trailing over the water from the reeds. Then there is a free fight and battle royal accom-

panied with loud squawks and croaks, until suddenly the whole affair dies away. With low croaks and explosive notes the pairs swim off to preen and recover their offended dignities. No doubt honour is satisfied in the case of both parties.

Some of these Coot fights may be due to territorial arguments but most of them take place on open water or common ground, and spring up over the most trivial causes—so trivial and sudden sometimes that the reason for the affray cannot be isolated by the human watcher. You may watch the Coot for a long time and still find him an enigma.

When the young Coots hatch, the parent birds grow very fretful for their safety and keep a most strict watch not only on their movements but upon those of all other birds. You may see the hen Coot cast her eye sideways up into the blue, then crouch down and call her chicks to her as a Carrion Crow beats overhead. If a boat is pushed in amongst the reeds she will swim away from it in distraction viciously snapping her white bill in great anger at the intrusion. Parent birds are suspicious of the intentions of every other creature, and doubtless this is why an erring duckling is so jealously savaged by the old Coot. For several days after their own young are hatched they hug the reeds keeping them close by their sides, and even when their chicks are fledged and learning to feed themselves the parents do not allow them to wander far on open water. The appearance of a Kestrel or a gull overhead is the sign

for a hurried withdrawal to the safe cover of the reeds. It is a touching sight to see the old Coot leading the way with the slim brown and white youngsters bringing up the rear; to see the parent pull the various water stems and offer them to the eager young or merely point them out with an inclination of the bill; to watch it demonstrate the art of diving and the young bird attempt to follow its good example; to contrast the naïve impetuosity of the little one breasting the ripples, all eagerness in a brave new world, with the watchful care of a parent that has grown wise with the years. Bravo old Fulica atra!

Apart from these birds and a few Waterhens the reed-beds are more or less deserted. The faint chiming of Bearded Titmice is not heard here, nor can we ever expect to see them as in Norfolk twitching their long red tails over the reed-tops, the cocks showing their blue-grey heads and golden bills as they crouch to watch us with their yellow eyes. No creamy-headed chestnut and grey Marsh Harrier sails on its great wings along this waterside, no blue Montagu's Harrier floats light as a lazy butterfly above the water. Not a Bittern booms crouching in the depths of the sedge. Only the wailful squeal of the invisible Water Rail, or the agonized groan of the hen bird near the nest ('orrr'—a snoring sound as of someone at his last gasp), assures us that there is one uncommon resident here. A black-headed Reed Bunting chinks in a matter-of-fact manner from a bush out in the middle.

By mid April nearly all the winter ducks are gone, but there are still occasional parties of passage birds which drop in for a quiet rest on the way north. Mallard, Teal and Wigeon become common again on fresh water at the end of March—a favourite time, too, for the appearance of the Pintail. One of the most beautiful of all our ducks, it derives its beauty from gracefulness of line and bearing rather than from any distinction of plumage. It seems to be a more delicate bird than the stout Mallard—a creature, too, of more nervous sensibility, always restless and suspicious. It is not, however, a bird which one has much opportunity of watching, for the evidence seems to show that it is very irregular in its appearances and nowhere numerous. In addition it is decidedly local, being, for example, regular in winter on the Thames estuary but practically unknown a few miles away in the Blackwater.

Of the diving Ducks the Pochards and the straggling Goldeneyes have gone, and the Tufted Ducks have dwindled to a paltry remnant of dull immature birds, some of which go through all the posturing and motions of courting without coming to any result. Such birds as these, for various reasons incapable of breeding, tend to remain behind when the others go north. On the coast one may find hundreds of Common Gulls or Great Black Backs far away from their northern nesting grounds, but usually there is not a single adult among them. Grey Plovers, Godwits and Sanderlings,

too, remain on our eastern shores and estuaries through the summer, but (unless it has been winged) you will not find more than an occasional bird in the waders' full breeding plumage. Ruffs may remain in likely places until June, tantalizing the watcher with the possibility of their nesting again in Britain—but usually it is to be feared that the birds are incompetent. I have seen both Ruffs and Reeves in England at midsummer but never a male bird in full sparring uniform.

Most of the breeding ducks' nests are not very far from the water, but there are very few in the reed-beds. The Shovellers nest in the grass tussocks of the water-meadow. When not on her nest the duck leaves it well covered with a thick layer of down which she pushes aside with her heavy bill on returning. The duck Teal, her nest well concealed under a bramble bush, sits so close that if one approaches tactfully one can get within a yard or two of her. Then she breaks covert and flies off, all distraction. With most brooding birds there is an instinctive courage which holds the sitter to its eggs or young, even when its body is palpitating with terror. The Song Thrush rather than leave its young will snap its bill in anger and savagely peck the hand which lifts it from its nest. The Little Tern if frightened from its chicks will swoop savagely at the heads of those who interfere with them. It is a courage, however, which has its tragedies, especially for the ground nesting bird, for when cunning fox or prowling weasel locates the sitting bird a meal is soon

made. The fox soon has the Mallard or the Teal by the neck—in fact in spring and early summer he seems to specialize in this type of hunting. One might think that the duck would go off at once when the fox approached, but the fact is that, apart from the love of their eggs, there is a dangerous fascination for most ducks in the sight of some strange animal. I have seen a bunch of Teal so strongly attracted by the movements of a fox on the bankside that they all swam quite close to watch him. The fox partly hidden by the reeds kept moving restlessly up and down, now out of sight, now reappearing and peering through rushes. The ducks followed. Finally the fox found an opening at the water's edge and here it stopped, staring across the water at the bright little ducks which now were ranged in a crescent not many feet away, all making low quacking noises among themselves as though deeply excited. The fox's cunning pointed face was moving nervously as he judged his distance and debated with himself whether it was worth risking the leap. The ducks showed no trace of fear whatever. On the contrary they showed the liveliest curiosity, although they were sensible enough to keep their distance.

The fox's behaviour reminded me strongly of that of the trained dog which is still used in duck decoys to lure the ignorant ducks up the pipe. The animal is taught to show itself at intervals, and the birds, curious at these actions of a strange animal, unconsciously follow it to their doom. Thus the decoyer takes advantage

of a fatal weakness in the bird's intelligence. In the same way I have seen a great flock of Goosanders and Smews on a reservoir all following a cat which had accidentally strayed on to the bankside.

From the woodland the ringing cry of a Green Woodpecker laughs across the water. In an ash tree by the lakeside a Lesser Spotted Woodpecker (he is scarcely as big as a sparrow) softly taps the very finest branches. Shuffling backwards he taps his way down to a thicker stem and then with a weak 'tchik' flies up to a higher branch. This also he actively inspects, alert to the presence of every minute detail. Quixotically he fidgets from branch to branch tapping every inch of the way with his spillikin beak. Sometimes he is upside down working his way down the underside of a branch. At times his crimson cap blazes in the sunshine and the black and white bars upon his back show up against the dark branches. Discovering what is apparently a soft spot he begins hacking away at the trunk on the underside of an overhanging branch, and for ten minutes works at it assiduously until a hole about an inch deep and a little wider is excavated. Then quite suddenly he seems to lose interest and with a low note returns to the slender branches in search of minute insects. After a few moments an inquisitive Starling, who has doubtless been watching all the time, flies down from nowhere to inspect the hole. The little woodpecker, scarcely half his size, shoots down on the trespasser like a dart, grazing the Starling's back so vio-

lently and so closely that he squawks uncomfortably and flies off in a panic. There, however, the woodpecker's animosity ends. Once more he loses interest and retires to the outer branches. A moment later the persevering Starling is at the hole again, examining it this time unmolested.

The incident is typical of the characters of the two species—the Woodpecker quixotic, impulsive, forgetful; the Starling enterprising, intelligent, persevering.

Overhead the air rings with the cries of Black-headed Gulls. Their thin grass nests are finished, and though they have no eggs before the end of April they fly round continuously shouting their excitement and annoyance 'ark ark ark ark ark'. One bird always circles above our heads 'keeping an eye on us' and shouting all the time. Row out to where their colony is situated and the birds disperse: instead of the ringing cries of excitement and annoyance we hear only a low apprehensive note 'uk' from the birds whose nests we approach.

Travelling parties of Yellow Wagtails troop over the water edges, calling wistfully to each other, and alighting to trip lightly upon the grass. So bright are their yellow breasts and heads that they look like buttercups or marigolds in the marsh. Other spring migrants arrive now daily. Sand Martins and blue Swallows fly low along the placid waters, their paths incessantly crossing and interlacing—a wreathing motion of tireless birds. The verve with which they dive into the air

or flick sharply upwards ton sap an insect in their mandibles, the steely glint of light upon the Swallow's back and its cheerful low twitter, so pleasant and thoughtless, are pleasing things because of their freshness.

The lakeside trees are interesting once more. A Chiffchaff chimes tirelessly in a yet bare elm top, inspecting it during the intervals for insects. The cool lapse of the Willow Warbler's song seems to burst quietly everywhere from the green hawthorns—a veritable avian lyric, pure and fresh. High in the branches of a chestnut a Tree Pipit is trying out its song. Tossing itself up fifteen feet it fans its tail and on dancing wings drops down, uttering a few hesitant notes. A moment later he is at it again singing more confidently this time, the notes rising and falling fountain-like with the singer. In a few days his performance will be perfected and the bird will go flitting up and dropping down, pouring out the intensest and most piercing flow of notes imaginable.

How many millions of people watch yearly for the return of the summer birds? How many thousands of letters are written each spring triumphantly announcing the first Cuckoo? Not even the visit of a film star receives so much publicity. Hundreds of enthusiastic naturalists note carefully each year the exact dates of the arrival of the various spring migrants, comparing them with records for previous years and persuading themselves that they are being scientific. Actually there





RINGED PLOVER

E. H. Gilham

is little that is really scientific in such observations: rather it is the manifestation of a deep-seated and age-old custom of man, of looking for and rejoicing at the turn of the year. The flick of Swallow's wing, the irrepressible burst of the warbler's song proclaim for us the triumph of life, the conquest of bitterness and death. After the harshness of waiting they are the symbols for which we look. 'For, lo, the winter is past, the rain is over and gone; the flowers appear on the earth; the time of the singing of birds is come, and the voice of the turtle is heard in our land'.

Summer lies all before us.

Chapter V

A POOL IN EAST ANGLIA: RINGMERE



Breckland is the name given locally to a distinctive stretch of stony waste and heathland, about four hundred square miles in area, situated in South-West Norfolk surrounding the ancient little town of Thetford. There may be wilder expanses of uninhabited country in England, but there is nowhere a district so distinct in its characteristics, or one which shows so many signs of antiquity: nor has any other part so varied a bird life.

It is crossed by three of the most primeval trackways in Britain—the Icknield Way, the Drove Road and Peddar's Way, whose grassy courses are still scattered with flints broken by neolithic man. It is a wild upland country of mighty open spaces, heaths covered with bracken and heather, with belts of dark pine trees which intersect the open heaths and everywhere add a touch of sternness and grandeur without impairing the fine openness of this rolling country. Apart from the planting of these pines, Breckland has remained from the earliest times untouched and unaltered by the hand of man. The 'brecks' themselves, now somewhat re-

duced by afforestation, are sandy, flint-strewn stretches of ground, bare uplands of crumbled soil and stone, honeycombed by rabbit burrows and without any vegetation save perhaps a little grass.

It is a country of great distances, and although it is nowhere much above two hundred feet high there is a tang in the air and a moorland spirit in the scenery which causes one to imagine it to be considerably higher. Wherever one goes there are wide vistas of open country to be seen, especially to the west where the land falls gently away to the green Cambridgeshire, where the great western tower of Ely Cathedral, twenty miles away, rises proudly from its island in the Fens.

It was a perfect morning in the first week in May when I left Thetford, my centre on the first of a number of field-days in Breckland. Before starting I had planned out the ground which I intended to cover during my stay—Croxton and Roudham heaths and all that part of Breckland which includes the seven Wretham meres. Actually my purpose was to study certain birds with which I was unfamiliar, but which find safe sanctuary in the heart of the wild heathland; yet what struck me more than anything was the variety and the richness of the bird life, which I saw in all the joy and freshness of the spring.

Lapwings wheeled and tumbled ecstatically over the brecks, and hundreds of Skylarks poured out a continuous strain of harsh brilliance on all sides. Mistle Thrushes flew off, 'churring' every few moments and

the pines which fringed the roadside were full of pied Chaffinches, numbers of which birds kept flying up from the ground into the branches, there to rattle off their bold, unchanging phrase of song. Here and there a pair of Goldcrests kept flitting among the pine needles and a feeble but penetrating 'zee zee zee' came from an all but invisible Tree-creeper mousing its way up the rough bole. Soon the grass track entered a green copse where a Blackcap and a Nightingale were singing, quite oblivious of each other's brilliance. The Nightingale was perched on a rose bush, its white throat throbbing and bubbling as it poured out each phrase . . . but it soon became aware that it was observed, and with a flick of its large red tail it had disappeared among the leaves. It sang no more. The Blackcap, evidently more absorbed in its singing, was high in a poplar tree and not to be seen. For once its continuous, sparkling flow of song seemed finer and more expressive of the spring than the brilliantly premeditated, but somewhat short-winded efforts of the Nightingale.

In the hawthorn bushes all round the little yellow Willow Wrens were dropping their little songs—a cool, measured trickle of 'refined and etherealized' notes. The sharp 'whit-whít whit-whít' of a Nuthatch seemed rather out of place out here, but the slate-backed little climber looked attractive enough, showing his rusty thighs as he actively inspected the underside of an overhanging branch . . . the flute-like 'ploo-ploo-ploo-ploo-ploo' of the Green

Woodpecker came mockingly from further off.

The copse did not last many hundred yards before the ground gave way and revealed a fairly extensive stretch of water, nestling in a basin surrounded on three sides by trees—Fowlmere. This, the most frequented of the Wretham meres is said at most times to be the breeding haunt of no fewer than seven species of duck —a record which no other stretch of water in our islands can pretend to. Its name shows that even in Anglo-Saxon times it was favoured as a bird resort. On the present occasion, however, Fowlmere offered little to justify the picturesqueness of its name. At the further end a bunch of Tufted Ducks rode quietly at anchor (non-breeders evidently), and a pair of Gadwalls floated side by side fast asleep. A few Coots were scattered here and there, diving in haphazard fashion, and a Little Grebe flew trailing across the surface of the water, trilling happily. . . . As it dived its head flashed like a ruby in the sunlight. A pair of Mallards, with harsh grating quacks, got up near at hand and made off for some other mere, while a few Redshanks and Ringed Plovers called nervously from the water's edge. Very interesting perhaps, but no Garganey, no Pochard, no Shoveller—not even a Great Crested Grebe. Altogether, not much of a show from a place of which we had expected so much!

Beyond Fowlmere the Drove Road makes a bee line and after skirting a pine wood emerges on open heath. Pheasants were strutting about hither and thither

in the wood, and occasionally one would go rocketing up in front, seeking cover. A pair of Jays were quarrelling over something in the undergrowth, and a Green Woodpecker with crimson crest and golden rump went dipping out into the open over the bracken. A pair of Stonechats, the male resplendent in a pure black and white head and deep crimson-brown breast, were anxious at my approach, nervously bobbing up and down on a furze bush, 'tacking' and flitting out of sight. A little further on, where the ground was planted with young firs and larches about three feet in height, I stopped to listen to a Grasshopper Warbler that was singing somewhere near in the long grass. At first it began half timidly, trilling for two or three seconds, and stopping whenever I approached. After I had sat down quietly for a while, however, it grew bolder and its song grew more and more powerful and intense. After a while I caught sight of the dingy little brown bird with a faintly spotted breast. It had emerged and was singing on an exposed twig above the surrounding herbage, about two feet from the ground. Its head was held upwards and its mandibles were extended at an angle of about thirty degrees, quite motionless; even the bird's tongue seemed to be quite still, and its throat showed only a slight vibration. But the whole of its tail trembled violently with the intensity of the performance. When beginning its song the bird has a low, resonant trill which lasts for about half a second, when a shriller, more metallic note enters, so that really the

song is a blend of two distinct notes. Perhaps this accounts for the peculiarly indefinable quality of the trill. Various explanations have been offered to explain the fluctuations in volume in this bird's song. Now the trill is intensely loud like the continuous reeling of some immense grasshopper, now a faint whisper so tenuous as to be inaudible to certain ears. It has been said that these changes are due to the bird's turning its head as it sings (as it undoubtedly does), and that the intake of breath causes the bird to lose power. Actually, however, the bird's breathing has very little to do with these variations, which are caused by the changes in the angle at which the mandibles are distended. Coward gave the greatest duration of the bird's song as two or three minutes, but after sunset when they have got properly tuned up I have heard birds singing continuously for almost a quarter of an hour.

Common and Lesser Whitethroats were threading their way among the pigmy trees, singing in snatches and evidently not yet settled for the summer. A Dunnock, with its bill full of small green caterpillars, called plaintively and waited patiently by the wayside until I had passed on, before it entered a bush near by to feed its young. A female Sparrow-hawk, dashing round a corner was almost on top of me before it realized its error, sheering off abruptly with a noticeable rattle of quills and swish of pinions.

All this was very pleasant and novel, and well calculated to beguile me on my journey to the open

heath, but it was not the real thing, and not what I had come for. Consequently I felt something almost bordering on relief when I arrived at Ringmere and prepared myself for more serious observations.

Ringmere is a quiet pool set in a circular basin whose sides slope deeply down to the water. It is set in the midst of an enormous stretch of heath—a withered land of bracken, heather and flint, where scarcely anyone seems to go. In the year 1010 it was the scene of a fierce battle between the invading Danes and the men of East Anglia, in which, on a bloody field, the foreigners were victorious. The encounter is entered in the Anglo-Saxon Chronicle, and the victory sung in more than one old Norse saga. The account of 'Hringmara' heath in the Hreimskringla leads one to suspect that the place has not changed much in the nine hundred years intervening.

Close by Ringmere is a smaller pool surrounded by bush and bracken amongst which I ensconced myself. I had to move with greatest caution however, for a resounding 'ger-lónk ger-lónk' warned me that I had already been observed by a pair of Canada Geese which were grazing on the further side. With their thin, long black necks reared upright, and their black and white heads raised in questioning attitude they stood, listening to the movements behind the screen of bracken. Beside them, picking about on the grass, were five yellow goslings—pot-bellied little creatures who obeyed the unspoken commands of their parents perfectly. For

a moment I was forced to reveal myself, and at this both adults lay motionless with their long necks along the ground, exactly as wounded Brents are supposed to do. In the present instance the birds only succeeded in looking exquisitely ridiculous, but as the intruder did not go away they eventually entered the water, with the youngsters following behind them, and conducted their offspring up to the further end of the pool. Even then, however, they refused to believe that all was well, and the female kept a strict watch all the time, making low, anxious noises from time to time.

In summer, unpaired Canada Geese are frequently to be met with on these heaths, and are very tame, allowing one to approach within a few yards before attempting to fly. All our British Canada Geese, are, of course, not really wild although they are now included on our list of British wild birds, and it would be a great exaggeration to call most of them semi-domesticated. They all have the strain of the wild in them. In winter these birds, which now seem so tame and stupid, band together in flocks and become so much more wary that they are accounted fair sport by local gunners. In April and May, when his mate is brooding the eggs, the gander mounts guard on the heath near by, drives off intruding birds of the same species with the greatest savagery, and gives warning of the approach of anything dangerous. Soon after the young are hatched, however, they are conducted overland to the nearest water, in the neighbourhood of which they re-

main until they are able to look after themselves.

That same unhappy movement which revealed me to the geese was enough to send up several ducks which had been resting on the water or in the sedges. I had just one moment to see a Garganey on the water—a pleasant little duck in blue and brown with a neat white eye-stripe—the next, the bird was up and away. There were still, nevertheless, several ducks left behind. Out in the middle, about twenty yards away was a bunch of Tufted Ducks. Looking exceedingly handsome with the purple reflections on their glossy heads, and their sleek, shining tufts hanging behind, they all had their necks up, and their round, yellow eyes were staring at the place where I was hidden. Nervously they swam away a few feet, then turned, undecided what to do, but ready to go up at a split second's notice. After awhile they forgot their fears and, with their heads down between their shoulders, settled down once more. At the far end a drake and duck Shoveller, quite oblivious of any possible danger, were swimming round and round in small circles, their heads out in front and their black, spoon-shaped bills skimming the surface of the water. It was so quiet and still in the early afternoon that one could hear the dribble of the water as they sifted it for mollusca.

Beside them a pair of Gadwalls were quietly swimming together, the female dibbling occasionally in the water, the male more ill at ease, sensing danger but following her about. The drake Gadwall is a rather

greyish bird with a distinctive black vent and a black beak (though in some young birds this is edged with orange)—the rich chestnut of the wing coverts, and the white speculum, which figure so prominently in most illustrations, are not often to be seen when the bird is at rest. The duck with her sandy, mottled plumage and orange bill is equally sober, but equally distinctive. Given a decent view of the bird, not even a novice could confuse her with a Mallard duck. Actually the Gadwall is much slighter, and more sparely built than the Mallard, although this is not very noticeable until the two species are seen together. Overhead, circling about in the sky, were other Gadwalls which I had disturbed on my arrival. On the wing they looked lithe and snakelike with noticeably long, pointed wings, and long, slender necks, but quite indistinctive so far as coloration was concerned. In flight they have a soft quacking note.

Presently with a swish of wings another pair of the birds came down suddenly on the water, and a second later a little Teal with its head drawn back and its wings arched came planing swiftly down and, with its black webbed feet thrust out, glissaded on to the water with a ghost-like splash that had not the slightest trace of shock or jar in it. The other Gadwalls, having probably seen me from above, ceased reconnoitring and made off elsewhere. The Teal, only a few yards from where I was, could not possibly see me, and yet some sense warned it that there was danger, and with its red and

green head bolt upright it gave an anxious 'crik-crik' note two or three times. Probably it scented me: I have had several experiences which seem to point to the fact that the Teal possesses exceptionally strong powers of smell, and uses them in the avoidance of danger. Nothing could be prettier (I use the word deliberately), than this little duck in front of me, for with its head raised and its eyes straining it made a picture of conscious alertness. Its head shone, patterned with bronze-red and velvet green with a straw-coloured line separating them, and its buff breast, wet with the water, was exquisitely stippled with innumerable brown spots; while its yellow vent and black and white wing, with its speculum bright as an emerald, provided further points of brilliant colour. Suddenly, with typical Teal-like decision, it made up its mind and flew off. Probably it had a mate sitting on eggs in some bush near by.

The Gadwalls, for the most part, had not yet begun laying, and were hanging about in the vicinity in pairs, idly awaiting that happy event which would separate them for two or three weeks. One cannot help observing that the female is the dominating bird, and the drake quietly follows all her movements and behests. The drakes were the more wary birds, and it was plain that one or two of them could not overcome a sense of uneasiness all the time I was hidden.

The heath is an arid place, and many birds are thirsty creatures, so that the pool is visited by many a strange species during the day. First a pair of blue Stock-doves

come flying round and round, and alight at the edge, where for several moments they drink deeply. Then with a clatter of wings they are gone. A Redshank, possibly a female just relieved from incubating, comes down, and wading in the water sips a little. Then, as if suddenly struck with a sense of danger, it stops and calls softly and sadly 'tloo'. Next comes a Lapwing that walks out into the water and begins throwing water over its back, and flapping its wings most vigorously—a regular shower-bath. He certainly does the job most thoroughly, takes his time over it and emerges all bedraggled and streaming to preen. A Yellow Wagtail, all bright and brilliant, wistfully calling 'tseep' comes dropping down to the water's edge where it runs trippingly, picking up invisible fragments and insects. In a moment another joins it. A loud, commanding 'tchik tchik tchik', from a neighbouring tree announces a Great Spotted Woodpecker, and a few moments later the black, white and crimson bird bounces out and down to the water's edge. It drinks nervously, hurriedly, as if fearing to be surprised, and has not been on the ground half a minute before it has darted up in the air and gone back to its tree, bouncing up and down as its wings open and shut. There it calls once, defiantly, and then goes about its business once more. A pair of Linnets, prancing in the air, suddenly drop down to the water and, when they have finished drinking, the male bird warbles a few soft phrases from a bush top. They fly off happily together.

So they come and pass on, while the ducks float quietly at rest, dibbling and occasionally sifting the water through their bills, or sleeping with their heads along their backs, and one white, blinking eye turned up to heaven. Every now and then a Moorhen, probably brooding, croaked among the sedges, but did not show itself. A monotonous Reed Bunting on a fluffy sallow spray persisted in trolling out its wooden, disjointed little song: plínk plínk plínk tséeri . . . then a pause, then again: plínk plínk plínk tséeri, and so on *ad infinitum*. Far away an equally persistent Red-legged Partridge was crowing defiantly: kokók kók kerchér . . . kokók kók kerchér, and the mellow notes of a Woodlark came clearly from above a distant ring of trees. Nearer at hand on a patch of bare ground an impetuous Wheatear kept throwing itself up in the air and singing its sharp, staccato song as it did so: 'chayer tak tak tak' and then a Whitethroat-like phrase is what it often sounded like to me; but, like most bird songs, each performance differed slightly from the one before.

No bird is smarter, or more tasteful, than the Wheatear in its spring dress: the ensemble of grey, black and white, with the salmon flush on the chest and neck is more charming than anything, and the graceful lines of the bird set off the delicate hues to perfection. This bird sang every few minutes. Sometimes it went dashing after some other male Wheatear that had come just a little too near, and occasionally it would run along the sandy ground into a rabbit-hole in which lay the com-

pleted nest. Who knows what strange rites were there performed?

About six o'clock there was a sharp shower, the rain hissing down and dancing on the water. It was disconcerting enough for a human, but the ducks still rode quietly at anchor, never moving a single feather. The young goslings swam closer to their parents, and the tireless Reed Bunting stopped singing, and flew off to shelter. Then the rain ceased suddenly, the sky was blue again, and the evening fresh and beautiful. I decided to move, and explore the heath surrounding the pool.

I had scarcely set out into the open when about three hundred yards away a large brown hawk attracted my attention. Its buoyant, rolling flight and the indolent way in which the long, graceful wings were raised seemed more than vaguely familiar. The glass showed a long-tailed, umber-coloured hawk with long and yet broad wings, and as it turned in the air a patch of white on the rump confirmed my first thought—it was a female Montagu's Harrier. It was beating up against the wind, and going away, so that I had little more than a glimpse of the bird. In all probability it was migrating, possibly to a breeding haunt not thirty miles away, although it is quite probable that this species is now nesting in other parts of Norfolk than the Broads area. Not many years ago Montagu's Harrier was on the verge of extinction as a British breeding bird, but in the remoter parts of Broadland it has in

recent years begun to flourish again. From leading a malingering existence, it has grown to be so numerous that before long new breeding grounds will *have* to be found, for the harrier requires a considerable stretch of ground to settle down on, and thus a limited area soon grows overstocked. Even to-day an odd pair or two breeds in Breckland. I look forward to the day when the blue-grey male and brown female harriers may be seen floating over the bracken and heather of all the Thetford heaths, adding another striking and picturesque species to the lonely breckland: but perhaps in vain, for the curse of game preserving extends to these very heaths, and a conspicuous bird such as this would stand no chance in the face of the gun, if it attempted to breed in numbers. Certain it is that these heaths must be very tempting for such birds as are on the lookout for new breeding grounds. Can nothing be done about it?

There were large stretches of bracken where there were no birds at all . . . a single Whinchat still wandering perhaps, but generally speaking, nothing. Crossing Langmere (the longest of all the meres and at this time quite dry) several Ring Plovers flew round in greatest consternation. In these parts this little wader, usually to be found on the coast, is a common inland breeder—indeed Mr. W. G. Clarke, who knew more about Breckland than any other man, estimated that there were at least four hundred pairs. As soon as I had passed on they ceased their low flutings, and returned to the

dry mere-bed where their eggs lay indistinguishable among the scattered flints.

On the banks of Langmere, Wheatears, Yellow Wagtails and Pied Wagtails were nesting, and in the pine wood beyond a pair of Longeared Owls had made their home. They are early breeders, and one or two fluffy, buff-white young owls were already to be seen over the edge of the nest (an old Carrion Crow's), while one venerable and ancient-looking youngster, about nine inches high, was perched solemnly and passively on a branch below. On first approaching, the parent owls were always invisible. The female was brooding and was at first invisible, but when the footsteps below grew nearer she soon showed her thin, fixed face with its round, orange eyes, peering out and half crouching over the edge. For a moment she stared downwards at me, her feathery tufts raised rigidly upright and a look of strange foreboding on her face: then, seeming to make up her mind, she flew noiselessly off. Immediately, from another tree beside that in which the nest was, her mate, like some spirit of silence, flew out and followed her. The owlets remained, unperturbed by the cracklings and footsteps below, perceiving nothing, gazing impassively from the pine branches in a sightless stare. It was quite useless attempting to follow the adult birds for, although they never flew more than forty yards at a time, they never allowed anything like a near approach once they had been disturbed, but kept retreating in front of me into the

further depths of the gloomy wood, content no doubt to lure me on. Foolishly enough I followed them, catching an occasional glimpse of them between the trees until I lost them, and afterwards returning to the nest found them both once more in their former positions.

Nothing would please me more than to describe how I discovered a Crossbill colony, and to enlarge on the observations which I made while watching it. The sober fact, however, is that I never made the discovery, and saw only one Crossbill all the time I was in Breckland (that, too, by sheer accident). Mine was an 'unofficial visit'. I came as an unknown without permits or guides, without even the information as to the whereabouts of the birds. So I looked for them in vain. The Norfolk Crossbills, descendants of Continental Crossbills which visited England in 1829 and 1887-90 and remained to breed in the pine plantations, do not seem to be a very numerous tribe, and their breeding haunts are now safely guarded and well watched.

Out once more on the high heath.

The Stone Curlew was one of the birds I had set my heart on watching, but I had first to find it, and after walking a goodly distance on the open breck, ankle deep in places in the crumbling, sandy soil, I had seen nothing save the white scuts of a few rabbits as they bolted. I began to fear that what Hudson had written of this bird might be true after all. 'A species on the verge of extinction', he had called it, 'which will soon

follow others that have gone before,' and these words seemed more in keeping with the truth than other accounts which told of flocks of fifty and sixty being seen. Actually I knew Hudson to be hopelessly wrong, but for the time I was seized with the same dull melancholy which must have enveloped him when he wrote those sombre paragraphs about the impending extinction of many of our rarer species. There is really no fear of the Stone Curlew becoming extinct at the present time, but there is no doubt whatever that it is far from being so well established as it used to be. In Essex, where it used to breed sparingly, it is now unknown. On the Berkshire downs and on the Chilterns, where it is still accounted tolerably common, it probably numbers less than fifty pairs. On many a Norfolk heath the 'Norfolk Plover' has ceased to breed, and even here in Breckland, its greatest stronghold in the country, there has been a good deal of thinning out, due largely to afforestation and the planting of pine belts which have on many parts enclosed and limited the expanse of heath. The Stone Curlew insists on complete openness. It is a shy retiring bird, and at no time of the year is it shyer than in early May when its two eggs are laid.

A wild, mournful whistle about three hundred yards ahead was the first intimation I had of the presence of Stone Curlews. They were whistling on the ground. A pair of the birds stood side by side, rather stiffly, their round, bullet-shaped heads hunched between their shoulders. When I continued to approach they squatted

close down to the ground, and while I was still a great way off they flew up, showing their creamy wing bars and looking very big. They flew together and gave their wild, haunting whistle: 'Kóo kerléeer. . . . Kóo kerléeer. Kerléeer. Kerléeer.' It was useless searching the stony ground from which they had risen, although there was no doubt that this was the place selected by them for breeding. The pair came to rest several hundreds of yards away, and were now calling, as if upbraidingly, from beyond a belt of pine trees. Following them I again put them up, and as they flew up their yellow bills and eyes, and pale lemon legs, contrasted brightly with the black trees. This time they separated, one bird going off further from the nesting area to the right, the other to the left. Although it was now twilight I still followed one bird, and after careful stalking at last managed to see it really well as it stood watching me, sensitive and motionless, with its yellow eye. Then it got up silently.

Throughout the day the Stone Curlew stands about in its breeding territory, whistling occasionally perhaps, but for the most part merely standing in a passive doze. Just before sundown, however, the birds rouse themselves and there is a good deal of crepuscular flighting to different parts of the heath, and much of that haunting whistling that pierces one to the marrow with its strange, half-sinister beauty. Then, about two hours after sundown, the birds fly on regular lines to their feeding grounds, either to the muddy edges of the

meres or down to the river valleys. On certain evenings they are silent, on others they are strangely moved, and the darkness is filled with a confused, continuous wailing as one bird after another takes up the crying.

Happy the county which has given its name to such a bird, and which enjoys such a fine variety and richness of bird life. Wherever he hails from the English ornithologist must set local patriotism aside, and admit that taken all round there is no county in the British Isles which can rival Norfolk in its birds. As I came over the darkened heath on my way home, past Ringmere where two Herons were beginning their night's fishing, I pondered with the deepest satisfaction on the amazing number of birds which I had seen during the day. But when the visual memory of all these birds has lost its freshness and grown worn and blurred, the sound of Stone Curlews flying through the dusk will remain moving and clear. There is something of infinity in these wailings which go streaming across the twilight heathland sky like the wailful cries of lost souls despairing . . . the Ululantes . . . the voice of the wild.

Chapter VI

BY HILLSIDE STREAM: TEESDALE



The Dipper was obviously nervous. He stood there on a bald rock on the further side of the stream, bobbing jerkily on his stiff little legs, and then stopping to watch, his white eyes blinking short-sightedly. He was undecided. He turned his round white breast and eyed the human intruder who had suddenly begun to watch him, and then turned round to the opposite bank as if to fly off. Presently he summoned up courage, and turning round again, flew straight up to the bankside above, and entered his bulging, floppy nest inside which a faint tittering of several minute, eager voices welcomed him. From without, the nest appeared a large, untidy ball of dry moss, perched in an angle of the rock, with loose untidy strands left straggling: inside it was a cosy chamber of smooth oak leaves. It was in the same situation, and to a large extent the same nest rebuilt and repatched, as the birds had used in the two previous years, favoured by them no doubt because it was on an inaccessible part of the river.

After a moment the Dipper flew out of the nest and

went whizzing rapidly upstream, calling 'tzit-tzít' sharply and excitedly as he went. All thoughts and anxieties caused by the intruder watching by the nest were immediately lost. Alighting on a rock that sloped into the water he walked quickly to the edge, bobbed a little, and then deliberately walked down into the water. For a time he picked about there in the shallows, with the water breaking over his back. Then he disappeared entirely underneath, and fed among the river stones and shining bases of the rocks as calmly as a Rook in a meadow. Minute bubbles of air bepearled his black back, and by following their silvery light one could follow his leisurely course over the river bed. Presently he emerged and flew further off.

Meanwhile the female Dipper returned to the nest. She too was anxious of the watcher on the opposite bank; she too bobbed and blinked and was irresolute. She was even more loth to fly up to the nest under the circumstances, and when she did, approached it in a more circumspect manner, always flying first into the dead branches of a bush which had been uprooted and washed up in one of the winter floods. Each bird followed its own formula of approach when visiting the nest. The male had his particular route of approach and entry, the female hers—from the large rock in mid stream to a stone near the further bank, from there into the dead bush and thence in a short dash to the nest.

Sometimes the female spent a considerable time inside, perhaps brooding her young: but usually the pair

were out on the river searching for food separately, one up, the other downstream. Each bird after working a particular stretch of river on a number of visits, would fly off in the opposite direction after visiting the nest. Their visits averaged one in ten minutes. Sometimes as one bird flew overhead calling loudly the other would leave its chosen spot, and go dashing upstream after it. At such times many a pretty little act of dalliance took place between them, the male trailing his wings, and warbling his continuous sharp, staccato song, full of 'twit-twits' and bold, wren-like phrases. Mistress Dipper, however, was never still for long and would dash off again to business, leaving her mate sitting there warbling reflectively to himself among the bubbling runnels of clear water.

The Dipper is an early breeder. The Sandpipers which also frequent this stretch of river have not yet begun, and spend most of their time in courtship flights. They have only arrived from the south a few days ago, and are consequently not yet well settled for the summer. Male and female are wrought up to the highest pitch of excitement, the female flying off every few moments and the male pursuing her on rapidly quivering wings, trilling his intense love-song. Following her every turn and twist he pursues the female rapidly until she comes to rest once more. On the ground he approaches her with his whole body quivering, and she, content to lure him on in love-making, utters a low, seductive 'sée-up . . . sée-up', an intensely

pleading note which immediately stimulates the male to his brilliant, rapid song, 'títti títti sáyee titti titti sáyee titti titti sáyee'. A pretty scene it makes, the female with her head hunched between her shoulders watching, and the male perched there above on the rock with his head up, pouring out his song with passionate emphasis. Presently he approaches her on nimble little feet, with his body all trembling; but she, evidently feeling that the time is not yet ripe, immediately darts into the air and is off. Once again the male follows her, twisting and whistling all the time.

Seen on some sewage farm or by some southern lakeside on migration, the Common Sandpiper is an uninteresting bird, with weak, glancing flight and a tinkling, monotonous cry. One has to see it in its breeding haunts and at its love-making to realize how beautiful and fascinating the species can be.

In twos and threes Pied and Grey Wagtails search the water edge and the stagnant pools, and then go undulating off further down. The cock Grey Wagtail in the breeding season is really one of the most exquisite of all our birds. His back is a cool blue-grey to the rump where it merges into greenish-yellow, and underneath the pale yellow of his breast deepens gradually to brightest sulphur at the vent. As a final stroke Nature provides him at this season with a conspicuous, jet-black throat. It has the longest tail of all our wagtails, and compared with the others is a bigger, stronger bird, more full of energy and with a bolder, more sprightly

call-note. In England this bird is best described as a partial migrant, for in early autumn most of the birds follow the river down to the lowland and then wander southward, visiting sewage-farms, water-meadows and river banks in all parts of the country. It is true that here and there an odd pair nests in the south, but by March it is an unusual bird in that part of the country, having returned once more to the swift torrents of the northern hill-streams which are its real home.

A nest is hidden in a tangle of ivy on the steeply sloping river bank, and one pair is busily engaged in feeding the newly-hatched young. Sometimes, in the full vigour of their delight, they dance up in the air above their nest, rising and tumbling, turning and flashing in the sunlight like a moving jet of yellow water.

The opposite bank of the stream rises almost sheer to a height of one hundred and fifty feet, a steeply sloping cliff covered with trees and bushes. The Sparrow-hawk, which has just settled down to begin nesting in a larch plantation above this scar, has learnt that by suddenly appearing over the edge he is able to surprise many a small bird in the bushes below. He uses this trick nearly every day, and is often to be seen circling just above the top of the scar, helped no doubt by the air currents which rise from its face. Sometimes, forgetting himself, he approaches too closely to a small rookery, and so makes himself a temporary bed of thorns, for the Rooks, hating the hawk but not fearing

him, leave their trees and go for him most thoroughly, pursuing and diving at him, trying to get at him with their stout, black bills. At such times the hawk makes no attempt at retaliation, and retreats rather than endure the misery. It is most amusing sometimes to watch the Rooks returning to their rookery, after having driven off the enemy. Almost every time one bird is forgetful and flies over the nesting area of a pair of Missel Thrushes, committing the very offence for which it had just attacked the hawk. As the Rooks hate the Sparrow-hawk for his treachery, so the Missel Thrushes hate the Rooks, for they are egg-stealers and chick-murderers and not to be trusted. As soon as the big, black bird appears anywhere near, then, the cock Missel Thrush goes up in the air screaming harshly at him, and in a moment the hen leaves her eggs and joins him. Swooping at the supposed marauder they set on him, and buffet him most severely until he croaks uncomfortably and makes clumsy dives in his attempts to avoid the thrusts of the smaller and more agile thrushes. The latter pursue their enemy tenaciously, keeping close to him most of the time, and darting at him very furiously whenever an opportunity presents itself. The larger bird, which a moment ago had been the hawk's fearless attacker, is now a complete craven, only too glad to get away undamaged. But once the Rook is out of their area the thrushes suddenly lose their fierceness, and return quietly to their eggs. So strong is the law of possession and etiquette of privacy among the wild!

A pair of Kingfishers, one following closely after the other and piping shrilly, 'kee kee', as they go, fly swiftly upstream. Overhead the air is filled with numbers of Swallows still not distributed to their native parts. Their northward movement has been temporarily checked by the appearance of the river, and they are all busy above hawking for flies; as they turn in the air they twitter pleasingly, and the fresh glint of steel-blue wings and the deep, dull crimson of their faces please the eye. A party of Goldfinches are in the alders by the riverside taking the last of the seeds. A pair of Redshanks, nesting on the high moor away from the river, fly down and begin their daily bath in the shallows, wading and drinking as if to refresh themselves. Each day they come down to the same spot to drink and bathe and sport awhile, but a quarter of an hour is as much as they ever permit themselves, and when their time is up they fly off together. Evidently they are not far proceeded in the matter of nesting or they would not be absent for even so short a space as this.

The wood which slopes down from the top of the scar practically to the water's edge is full of birds. Entering it one is at once arrested by the tremulous song of the Wood Warblers and the sweet, bell-like note, 'pay pay pay', with which they sometimes half wistfully intersperse their shivering songs. During the first weeks after their arrival in England the males sing almost continuously, unless the weather is cold, and keep to the tops of tall trees in a restricted area in which

it is almost impossible to watch them satisfactorily. After a few weeks, however, they are to be found creeping among the bushes and the undergrowth. This change of altitude in the Wood Warbler is a sign of nesting, for though they live in the tree-tops they are ground breeders. While the females are incubating on the ground the males still keep to the tree-tops and fill the greenery with their cool little songs, inspecting the newly opened buds, yellow like themselves, now snapping at a fly and now bursting into song, 'ip sip sip sip sip srrree-e-e-e-e'—a song that begins as a simple, lyrical phrase and ends with a shivering burst of ecstasy, all the wing feathers shaking and quivering with the energy of utterance.

There are many parts of the country for which I cannot speak, but I doubt whether the Wood Warbler is anywhere much commoner than it is here in these wooded Yorkshire dales. It extends up some of them to the final limit of the trees, to the very edge of the moors. Yet in a well-wooded county like Essex where one would naturally expect such a species to be numerous, it can only be described as local, and in most woods there is almost unknown. At first it seems that so wide a discrepancy as this is due merely to the capriciousness of distribution, but it must be remembered that the Wood Warbler is a bird with definite tastes. As the Dipper is found only on the hillside streams so the Wood Warbler (though not quite so addicted to one particular ecological type) is usually found in sheltered

wooded valleys near water, whether stream, river or lake. Its haunts conform to a type, and perhaps this accounts for its absence from many parts of so level and dry a county as Essex.

In mid May the wood is filled with the pure, crystalline songs of brown Garden Warblers and grey Blackcaps, and of course the lilt of the ubiquitous Willow Wren. The Garden Warblers and Blackcaps seem to keep very much to themselves, forming a kind of private colony in which the male birds pour out their songs point blank one against the other as they wander from bush to bush. They are still not settled in their territories. Sometimes as they sing their love-songs they are so wrapt up in their performance that one can approach quite close to them, and watch the unbounded, bursting vitality and emphasis which they put into it. This, however, is not the usual behaviour nor is it often that one sees the birds so passionately *in extremis*, so entirely given up to uncontrollable impulse as this. The reactions of the drab little female that goes flitting off among the bushes leaving her tree-love to sing on, are quite unknown to us, nor does she present any sign of behaviour which we can use as a means of interpretation. Outwardly at least she remains impassive.

Blackcaps sing more in snatches, and usually not so fluently as Garden Warblers, but they have a far superior range and a more polished execution. A soft resentful warning 'cur-tak' from the bushes informs us that a female bird has begun to build hereabouts and

that we are intruding. She is a bird who always manages to keep well out of sight, flitting nervously among, and retreating through, the bushes.

It would be foolish as well as otiose to revive the ancient dispute as to the order of merit in which our song-birds ought to be ranked. There is little doubt that the Nightingale and Blackcap would fill first and second places just as would Shakespeare and Milton in the ranks of English literature, but after that it would be useless to particularize. Personally, while recognizing the exhilarating sparkle of the Blackcap and the brilliant virtuosity and tone of the Nightingale, I often find the Garden Warbler or the Robin more *satisfying* than either. It all depends upon what you are looking for in the singer. It has always been a mystery why the term song has been almost exclusively confined to the performances of a particular section of the Passeres, and refused to those of many other families. If the Pied Flycatcher and Hawfinch may be said to sing, but the Curlew and Redshank not, then the term song is meaningless. But in discussing any question connected with bird-song it is useless venturing personal opinions, because private enthusiasms can never be curbed. To many people the shrill whinnying of a Kestrel soaring over its nest, or the resounding croak of a Raven in the mountains may have infinitely greater significance as music than the singing of many Nightingales.

The Pied Flycatcher's song is the most half-hearted,

hesitant and unobtrusive performance in the whole range of the choir of birds, and yet because of its very limpness and hesitancy it has its own charm. It is not so much a song as a sub-song, an embryonic kind of song, quite undeveloped and incomplete. The bird only partly opens its mandibles, and utters a low, broken warble reminiscent of the beginning of the Reed Bunting's pedestrian effort, and like it also in being slightly variable. The general formula is something like 'plínk plínk er plínk tirr sée tirrr sée', but sometimes the first three notes are all that are given. Even when the bird is only a few feet away, one can sometimes hardly believe that it is singing, so faint and feeble is the sound. Sometimes the whole performance is most apologetic, as if the bird were ashamed to display its inability and lack of fire. This summer bird is as characteristic of the hill valleys as the Dipper, but it is more local and less conspicuous.

It is not uncommon by the wooded riversides of the northern dales, and is to be found in many a ghyll and valley among the moors. It seems to be spreading gradually westwards and in the Lake District, where it is apparently increasing, nests in many parts in private gardens, utilizing the nesting-boxes which have been provided to attract it. The wooded Lake Country would seem to be the ideal habitat for such a bird, but nevertheless it seems to have been uncommon there prior to its extension westwards from the dales. The little male, in sooty black and pure white, with curious



THE NIGHTJAR BY DAY

J. H. Owen



A CORNER OF THE CLIFFS

By courtesy of 'The Northern Echo'

patterns in white upon his wings and two white spots upon his forehead, is as charming and smart a bird as one can find anywhere, and is quite confiding. It is shorter and smarter than the Spotted Flycatcher which, by the way, is frequently to be found nesting alongside it—and it is altogether a more chat-like bird.

When they first settle down both male and female keep very much to their chosen area and, as one might expect, the half-inaudible song plays little part in the proceedings. In fact the two keep very much to themselves, wandering off on their own among their branches. When they meet on the wing they fly at each other as if in amorous salute, but beyond this there is little excitement. Differences with neighbouring pairs, if any, are settled quietly and quickly, for the Pied Flycatcher is essentially a docile bird. Apart from the song, which on most days is uttered infrequently, the birds are quite silent except for a weak call-note 'tchzik' or 'trip' which they utter when alighting. Of the two, the female is the more restless, constantly wandering about, never still even when the nesting hole has been chosen and the nest completed. She has a kind of gliding, wavering flight, and neither male nor female has the same dashing decisiveness of the ever familiar Spotted Flycatcher—there is something humble and quiet even in their flycatching. Often the birds half rest on their bodies, their legs seeming to be too weak to support them properly. They seem to lack energy, and there is something slightly limp and enervated in

all their actions. Nevertheless the bird is entirely charming, graceful and winsome: I can conjure up no vision more truly typical of the northern spring than a branch of freshly leaved elm, yellow and tender, with a cock Pied Flycatcher in bright black and white swaying on the end of it.

The energetic and dashing Redstart, bright in all the glory of red and blue-grey, black and white, is also a common resident in the wood, and offers a direct contrast in behaviour. Vivacious! It is simply bursting with irrepressible energy, flashing from bush to bush fairly effervescing and bubbling over with song. In Maytime the Redstart is a great wanderer, and even when it has become paired the wandering is continued. It is a bird which requires more room than the Robin which, in certain rather superficial ways, it rather resembles. Its short, fierce song is very difficult to describe accurately, and it is to be doubted whether a really faithful verbal account exists anywhere in print. It is a short, quick song, uttered with great spirit but colourless as the Dunnock's is, and in spite of its monotonous repetition quite pleasant to listen to. One's first reaction is to say, 'Rather like a Yellow Hammer's, only much quicker and more lively', but after listening to it for a number of times a more accurate verbal description would resolve itself into 'a short Wren-like warble, very quickly and emphatically uttered, ending in three stressed notes'.

There is nothing intimate or confiding about the Redstart. It keeps its distance and expects you to keep

yours. It is a bird of most volatile temper, a fact which shows itself in restless habits, and the constant twitching and flirting of its flashing red tail—the single feature which is most expressive of character in any bird. It is constantly darting off to new perches, eager to assert itself anew, and whenever it alights it looks round as if in defiance of all comers, flirts its tails, and rattles off its song in careless, cavalier spirit. Sometimes its singing creates the impression that the bird is the possessor of the vilest of tempers, and no doubt this is why in spite of every advantage of plumage it falls short of real distinction, and fails to be a common favourite.

At its nest, however, the Redstart is a very different creature. The carefree, fearless bird that we have watched flashing and tumbling among the river stones as it caught the rising mayflies, this same bird that sings so restlessly and irrepressibly from the bush-tops turns out to be a very craven. His burning tail shivering nervously he creeps furtively through the greenery, anxiously calling 'tak tak tak' all the while, and keeping very much in the background. The female, though somewhat more courageous than her mate, also refuses to visit the nest so long as a human being is in the vicinity. She keeps up a frantic 'ooík ooík ooík', and both birds keep flitting restlessly from tree to tree.

Here also is the Tree Pipit, throwing itself up into the air from the tops of the tallest trees, and falling in a gushing jet of song. We are rather apt to despise the Meadow Pipit, but we cannot deny that both Tree and

Rock Pipits achieve some kind of rare distinction, and the Tree Pipit is decidedly the most appealing of the three. It is a creature of more slender and refined cut than the others, altogether more aerial and spiritual. Its song, so piercing in quality as to be positively painful to some ears, is the most histrionic of all birds' effusions, and the stage is set perfectly when the bird goes tumbling down to some tree-top with the rushing stream and grey rocks below.

The song of the Tree Pipit is so self-sufficing that I am afraid most people know little else about the bird. Although so arboreal and skyey a songster it is a ground nesting bird, seeking for its home among thick grass in the immediate vicinity of trees and water. But how many have watched it at home, or feeding, or all those thousand and one actions which go to make up a bird's life? The song is enough.

These, then, are the birds of the riverside, which cling to the cover of the trees and the undergrowth, confined to a narrow strip of land on each side of the stream. When the summer wanes and the business of rearing their young is over, the river is still their highway, and they begin their migration by following, at least for a time, its course down to lower and more open land. The Pied Flycatchers are the first to go, disappearing from their woods in early August, and taking to a wandering life before their migration begins in earnest. Thereafter they are more likely to be seen on sand-dune or cliff-top, than in the ghylls or on the

water-sides of the hill country. They are followed by the Warblers, and those by the Redstarts and Tree Pipits. By the end of September the Grey Wagtails are moving down to the plains, bound for a wandering winter life. The only one which remains a constant resident is the Dipper, and he, hardy little fellow, remains here until really severe weather or heavy floods drive him down to lower reaches of the river.

Above the river the land rises rapidly on both sides to the moors. The wood edges the lowest slopes of the hills, but when seen from the heights above it appears as the merest fringe. Perhaps that is why in springtime the birds seem to fill the wood, and why so many species can be seen within so confined an area. Walking above the wood in springtime it is possible to be delighted within the space of a few moments by such various sounds as the Sandpiper's love-song, the steady flow of many Garden Warblers, the merry 'chicking' of a Great Spotted Woodpecker (with the occasional sound of the male drumming on the bole), and the 'becking' of a distant Red Grouse.

Standing there erect on a grey stone wall with the brown moorland rising behind him the old cock grouse seems to be looking down from the edge of his heather domain, on a green world full of strange voices. He moves gravely and slowly, sidles along the top of the stones on his white, feathered legs, then looks once more down towards the river, and lifts nis neck and crows.

Perhaps it is his challenge to an alien world.

Chapter VII

BUSH, BRACKEN AND GORSE



How pleasant on a glorious May evening are the gentle slopes of the common, when the sky is blue and sun hot on cheek, the breeze no longer 'a nipping and an eager air', but soft, summerlike with the scents of blossom quietly borne upon it. The hillside's April sprinkling of golden furze has burgeoned now into richest orange blaze, while the floury-white masses of late blackthorn still dense with blossom and the green hawthorns laden with flowers and magically haloed with heavy odours, seem to float everywhere in the bushy hollows. Here and there we wade through shallow pools of shimmering bluebells or strive through tangles of newly sprung undergrowth where springs the delicate white wild parsley (face high in places), pink campions stand row on row and hairy nettle stems rise pointed and strange. Even the grass is beautiful in its green freshness.

It is the typical English summer scene, hayfields and green cornland below and the tangled slopes of the common rising gradually to the hillcrest where the slender village spire points heavenward from its tuft of

trees. The happy shouts of cricketers on the green with the crack of ball on bat, or the hoarse laughter from the open windows of the inn can be clearly heard from most parts of the common. Here if anywhere wild Nature and rustic man are in completest agreement. Elizabethan half-timbered gables and old thatched roofs mingle harmoniously with the trees and bushes: in early summer evenings you may drink your ale in the garden and hear the songs of a dozen Nightingales in the shrubberies. From the meads below, or from a cottage window above, the scene has its beauty as a unity; yet somehow one feels the miracle more in a million odd details rather than in their cumulative effect. Each succulent leaf held to the sun has a loveliness and a mystery of its own—a mystery with which one must attempt to grapple albeit conscious that it is unfathomable. How to describe to ignorant nostrils the scent of lilacs or wild apple blossom, paint with mechanic words the richly iridescent wings of Vanessa Io, or delight the blind with the cool sculpturesque beauty of sulphur-yellow water flags?

This earthly paradise is the summer haunt of many birds. Overhead a spiral of screaming Swifts, a Kestrel motionlessly poised, a pair of Turtle Doves hurrying over to the wood . . . a glimpse of deepest ultramarine from Swallows glancing over a bush-top, chasing each other over the ground. All these, the obvious fliers, are not really birds of the common at all, but the attraction of abundant food in its various forms and the presence

of safe cover results in their being ever present. The real birds of the common are the bush-dwellers, the furtive Warblers and Finches, skulking Jays, wandering Cuckoos, the nocturnal Nightjar and rascal Little Owl.

A harsh angry note strikes the ear and next moment the flick of a black and white tail catches the eye as a bird alights on a neighbouring bush-top. It is a cock Red-backed Shrike. Erect and twitching there he faces us, chattering half nervously, half vindictively. A moment later a second shrike flies twisting out of a thick rose bush and perches truculently only a yard or two away. The first bird is exceedingly handsome with his red-brown back, black and white tail and pale grey head: his fierce face bears a thick bar of black and his white breast is faintly tinged with pink, an exquisite final touch. The second bird is the female and much less distinctive, clad in sober brown, barred and spotted.

Shrikes are no skulkers. Rather they are conspicuous birds and, buoyed up by that spirit which enables them to domineer over all their neighbours, they are almost fearless of the presence of man. They make no effort to conceal themselves or to retire to the more unfrequented corners of the common: if the bush or hedge of their choice is thick and tangled they will nest in it anyhow, whether a busy highway or a frequented path runs by it or not. Wayside telegraph poles are favourite watch-towers and you may see them there at any time of the day, suddenly plunging down into the grass to seize some wandering beetle or active bee. 'Butcher-bird'

seems rather too vicious a nomenclature for these birds. Lethal they may be in look and intent, but most of their animal victims are young helpless birds just out of the nest. Magpie and Jay bludgeon quite as many fledglings out of existence as any shrike, but they have not the shrike's picturesque habit of spiking their victims for display on a thorn bush and riving them to pieces afterwards when they have sufficient appetite. This 'larder' as it is called is usually a few yards away from the nest and seems to be used chiefly for the adult birds' private uses. If the nest is approached and contains young ones, the old birds may show signs of nervousness, darting from bush to bush in hesitancy and angrily flirting their tails, but after a short time they will come to the nest even though the intruder is standing by it. The female is especially bold in this respect, dashing in every few minutes with her beak crammed with insects. These she quickly distributes to the five chittering young and flies off over the bushes in the direction from which she came. The male is much the more suspicious of the two, but works equally as hard (nearly always in a different portion of the thicket from that worked by the female). During the early days the nestlings are constantly plied with food, male and female parents sometimes ministering to their offspring together at the nest, and as is the case with most passerine species they continue to feed them after they are fledged, when they have scattered to various points among the bushes.

Of Finches there is a plentiful variety. Yellow-barred

Goldfinches daintily fuss about a hawthorn where their artistic little nest is hidden. Perched on the topmost sprays of gorse pink-breasted cock Linnets serenade their sitting mates with subdued twitterings and discursive improvisations which are most pleasant to a tired ear—an unobtrusive unpretentious rambling song, in which there is many a pure and perfect note. Spotting us the birds grow silent and restless: 'titchup! titchup!' and they are gone.

Gentle Bullfinches pipe wistfully and faintly in their blackthorn clump, furtively entering by secret ways to feed their young. In the sunlight the cock's breast looks almost blood-colour and his dull black cap and grey mantle give him a strikingly bold appearance which is quite out of keeping with his character: his is only a nervous apology for a song, a few quaint halting undernotes. The female also sometimes sings. Here and there a sulphur-headed Yellow Hammer chinks soberly from a bush-top, cocking his head to listen to the cheerfully unchanging chime of his nearest fellow. At the common's edge Tree Sparrows with chestnut caps and spotted white faces chatter among the sallows, carrying straws and feathers into holes and dark crevices in the bark where their loose untidy nests are hidden. In the warm afternoons Greenfinches drowsily wheeze from various trees, or go glancing and side-slipping through the air trilling light-heartedly. On her perfect nest of moss and lichen the brooding hen Chaffinch watches you motionlessly as you pass within a yard from her.

If you stop to note the trimness of her sober plumage or the exquisite workmanship of her home you can see terror mounting up in her. Her dark liquid eyes never blink or flinch from their terrified watching, not a feather stirs, but you can almost see the swelling of her heart. Another step closer and she can bear it no longer but tumbles distractedly away uttering a weak frightened note. Great Tits scold us openly from the lower branches of their tree, and a glossy Starling flying up with his golden bill filled with caterpillars refuses to enter his nesting hole, but mounts guard turning his head from side to side to watch our movements below. He is not afraid but he is slightly apprehensive and decidedly angry, and from time to time he treats us to a solitary curse.

Here a pair of silvery little Lesser Whitethroats nervously thread their way through a rose bush, anxious at the presence of a brown-backed Common Whitethroat within their territory. 'Tuk tuk tuk tuk' they call chidingly all the time, and while the hen remains in the middle of their nesting bush the cock follows the intruder through the foliage, flying after him to see him well off the estate. Throughout May there is a great deal of wandering about with all the warblers, but by the close of the month by far the great majority are settled down and have eggs. Everywhere over the common's face the sudden bursts of song from Common Whitethroats may be heard. Impetuously they throw themselves up into the air, dancing up on twitch-

ing wings in a little fountain of flight and rattling out a sharp irrepressible burst of staccato notes: or flitting over a bush-top they snatch it out impulsively. Always it is accompanied by the same irresponsible jerks and gesticulations. Visit them at their bed of nettles where the nests are concealed, however, and they grow silent and sullen, creeping through the branches above croaking anxiously or furtively questioning, 'kerwíkerwík kerwíkerwík'.

The Lesser Whitethroat's song is rather less impetuous than that of the commoner bird. It is also a more meritorious performance, a pleasantly piquant song full of needle-pointed notes and shallow lyric excellence. A really good Lesser Whitethroat might conceivably be mistaken by the uninitiated for a Garden Warbler. Among the hawthorns and briars a number of these latter birds sing continuously throughout the day—an endless and seemingly effortless lyrical flow, a sustained light bubbling allegro. They lack, however, the sparkle, the vivacity of a Blackcap: their songs do not flash from the greenery.

Even till late in the evening the chorus of song is kept up: Nightingales and Song Thrushes outsinging all comers, with delicate piccolo passages from Willow Wrens, abrupt scherzi supplied by the Whitethroats, the twitterings of Finches, fluting of Blackbirds and in the rare interstices of silence the bursting cadenza of a passionate Wren. Sometimes there is a raucous outcry, often of Blackbirds and a white rump and a glint of

azure on wings flapping off quickly through the bushes shows that an egg-thieving Jay is the cause of the disturbance.

Gradually, however, the orchestration begins to grow thin. The Whitethroats drop out entirely, the Yellow Hammer ambles up his scale less frequently than before as if he had at long length grown weary of his song. Song Thrushes sing on for another half-hour bold and brazen as ever, but at any moment they may fall off into a void of silence. Only the slate-blue Cuckoos keep up their glad shout as blithely and insistently as when the sun was high and the sky blue. In May they seem to lead a life of continual delirium. From three in the morning till twelve at midnight the birds keep up their repeated musical dissyllable. If any bird's song be tedious and brief it is the Cuckoo's, although sometimes they stumble excitedly into a high falsetto call—a sort of 'cuckoo cuck ak ak ak ker cuckoo'—especially if the female is near by. At such times she may respond with her pure bubbling, rippling trill and the cock bird will fly to her side calling continuously, bowing and raising and waving his long eloquent tail at each call: 'cúckoo cúckoo okakáh'—a sardonic lecherous laugh. Away she flies and he chasing after her over the bushes, the meadows and through the trees, shouting as he goes. Of all modes of bird life which have evolved that of the parasitical, promiscuous Cuckoo is one of the most haphazard: yet an apparently careless system works and the species flourishes.

Gradually the confusion settles down into silence. A Thrush sings three more phrases and hearing no answer is silent at last . . . a late Rook beats creakily overhead to roost, cawing drowsily to himself. Blackbirds clack nervously having found a Little Owl erect upon a gate post. For ten minutes they keep up the constant accusation then, as the owl opens its wings and dives into the air to go undulating to the nearest tree, there is a final clatter of hysteria and the silence drops like blackness when a lamp is switched out. A few dewy moments and the gap is filled by the soft churring of a Nightjar. It stops and instead there is a hushed expectancy. Then, quite suddenly, the throbbing begins again quite near, dropping now and then to a croak but always rising immediately to its former spinning intensity.

Outlined against the thick half-light of the east the bird crouches there on the end of a leafless branch, his flat head and long body motionless, but his tail quivering violently with the force of his vital purring. Then as suddenly as it began it trails off into silence as the Nightjar with a flick of velvet wings dances into the air. A second bird appears above him, seemingly bred out of the twilight, and together they perform their elf-like sexual flight, sometimes almost touching each other as they circle or dance on delicately jerking wings. Up and down, round and round, and glancing from side to side he follows her, both his wings rising and falling spasmodically . . . as she goes she calls to him sharply, 'kowík kowík' (an owl-like cry that startles the

silence) and he, above her, answers her, then slowly claps his wings as he follows. Once, twice, a dozen times he raps them above his back. They fly round lazily in this mazy motion, then are lost in the darkness. A minute later the purring comes from further off.

When first they arrive in our country, which is to say from mid May until early June, this sexual flight of the Nightjars is a nightly ceremony. They cover a wide territory in their moth-hunting throughout the night and the male has certain definite perches from which he churrs. While the night is young he spends most of his time churring from one or another of them, flying from one to the other with a direct purposeful flight which is quite distinct from his spasmodic ecstatic hunting flight. When not engaged in sexual flight the two birds follow separate courses, but the female is constantly following him around luring him away from his perch to dance with her through the misty twilight. Each time she leaves her hunting to hover before him he disappears silently from his perch, bouncing out on to the air with the churr in his throat rising to a liquid trill, bubbling off into silence—like the spinning of an electric wheel when the power has been turned off.

More mystic and more perfect than the note or the flight of the Nightjar is the song of the Nightingale. At the common's foot is a shallow dell dense with hawthorn and blackthorn, approached indeed by 'verdurous glooms and winding mossy ways'. Here when all else is silent the singing of the Nightingales becomes some-

thing more than an enigma. One has not to be a mystic or a poet to feel the miracle of it, but perhaps one must be something of a psychologist to understand why the bird so hypnotizes us with its brilliance. In hot May noons when the whole sky seemed like a huge burning glass, I have sat in the green shade of a bush with the Nightingale throbbing its throat out just above me, and have consciously striven to analyse the quality of the song. I have crouched in chilly nights, my paper a white blur before me, my words invisible in the darkness, scribbling down immediate impressions.

The most obvious quality of the song—the impression which startles one on first hearing the bird, is its extraordinary power: the volley simply bursts out of the bush. The quality of the notes, however, is not at first obviously beautiful—they never attain to the mellow beauty of the Tawny Owl's hooting or the wild pureness of a moorland Golden Plover. Many of them are indeed harsh and metallic, and in the finest there is a peculiar intense sharpness compared with which a flute sounds flatulent. But they are uttered with such telling force and boldness as to astonish one so utterly that one has no time to feel critical about timbre or tone. One can imagine songs much more beautiful—but nothing more brilliant. The bird sings in short snatches of five or six seconds with shorter periods of silence. Each burst is different from the one before, and if you listen for an hour you will not find two such improvisations to be identical. Infinite variety the song certainly pos-



REED WARBLER

J. H. Owen

sesses—an almost inhuman variety of which one would scarcely deem a bird capable. A song of contrasts too—the immediate juxtaposition of metallic harshness and the depths of purity, the batrachian croak followed by the light arabesque or wistful lyric. The unique power too of switching at will *as it were* from one plane of emotion to another, from pleading to defiance, from passionate utterance to expectant silence, has a peculiar effect upon the hearer who endeavours to follow all the rapid twists and involutions of the song. His own emotions are rendered so unstable by sympathy that he is as it were led out of himself.

In spite of its speed and power there is yet no sense of the singer forcing itself: 'full-throated ease' (a phrase of rare genius) describes it exactly. Even when the very bird itself is shaking with those vibrant tingling notes which sound like the quivering of a taut metal string, we feel that the intensity is natural.

Listen. A croak, then he dashes off a sudden phrase so powerful that it fairly takes one's breath away, executing it with the overbearing bravado of a virtuoso at the height of his confidence. A pause . . . then five slow pleading melancholy notes so stirring that it seems nothing can ever be more lovely, and then a rapid staccato gush of complex sound as if to show you he is above mere sentiment. Another pause, then the tingling vibrant trill like the vibration of a taut metal string, with five swift metallic notes to cap it . . . 'toy toy toy toy toy' (with almost impossible speed), then for two seconds

an exquisite liquid lyric of indescribable purity, the notes dropping into their places from the singer's throat with the Nightingale's own swift accuracy . . . then a fiercely assertive passage full of harsh 'taks' and wheezy notes ending in a croak. 'Keer keer keer keer' and the staccato close. Then 'kitter kitter kitter kitter' and a liquid bubbling trill during the execution of which the singer turns his thrilling throat from side to side as if to spray the power of his utterance over as wide a surface as possible.

For a time he sings no more. Doubtless his assertion has spent itself and he listens to his fellows singing at him in the distance. The harsh 'frark' of an invisible Heron, going over to his fishing, breaks the silence, and from the brake comes the half-uttered call of a drowsy Cuckoo. The night is so still that even the new-leaved willows do not stir; so soft that you can almost feel the dew falling; so quiet you can hear the low murmur of the brown rivulet beneath the greenery—water purling over pebbles.

Chapter VIII

UNDER THE CLIFFS



To walk beneath the sea-cliffs in June is a most invigorating experience and one which no one could find uninteresting. The constant motion of flying birds is bewildering to one picking a painful way among the weedy rocks and bright pools, and the noise is simply amazing. Every bird whether it is in flight or at rest seems to be screaming its hardest, and the medley of the various Gulls calling and squealing, Fulmars cackling, Kittiwakes shouting, and Cormorants making all kinds of noises, is so confusing that it is often impossible to say which birds are making which noises.

In a rough way the cliffs are divided up into colonies of separate species, although it is of course possible to find sections where two or even three species may be seen nesting together. Our sea-birds are sociable creatures, and even when they are breeding they must have their fellows close at hand. The Kittiwakes have colonized a precipitous face of cliff that drops sheer into the water. Many of their plastered seaweed nests are in situations which, even for a sea-bird's nest, can only

be described as decidedly precarious, perched on trifling excrescences on which even a cat could scarcely find adequate foothold. The birds, however, see to it that their neat little cups of seaweed are firmly fixed, and somehow there is always room for both birds to stand at the nest. In early June some birds are still incubating, while others already have woolly little chicks crouching down, or looking out over the rim of the nest. Where the female is still sitting on eggs the male bird is often to be seen standing at the nest side, facing his sitting mate with most obvious affection. He spends more time by his mate than most male birds, and is altogether a most loving, loyal husband. When not actually at the nest he is flying over the green waters beyond the shadow of the cliffs, in search of food which he brings every few minutes, and disgorges with the most expressive contortions. When he flies in he shouts a guttural, sonorous 'kitti-órk kitti-ór órk', and sometimes the cry of a single bird is enough to set the whole colony shouting, for the female concerned recognizes the male's approach at some distance even through a crowd of wings, and her welcoming shout is taken up by all the neighbours. The moments when this babel dies down are few and far between, and usually the iron cliff-face rings with it. Male birds are constantly coming and going, and each one as it arrives is invariably greeted with a raucous welcome from its particular nest where the female awaits it, with beak wide open and upturned glance, eager for food. If only one could

understand all the varied Kittiwake language! It is a varied scene, white shrieking wings dancing in the sunlight, confusing to both eye and mind.

The Fulmars further along are more scattered, and their colony is almost quiet. In books it is said that they are very silent birds, which may be true of them when on the wing, but at their nests they can be very loquacious, if not to say noisy. It is often said that on cliffs where the Fulmar begins to increase (and it is a bird which has increased phenomenally during the past twenty years), the Kittiwake gradually disappears. Why so gentle and dove-like a creature as the Fulmar Petrel should exercise an adverse influence upon the Kittiwake, a vigorous independent little gull, well able to look after itself, is very obscure; but it seems no idle fancy that it finds the petrel's presence objectionable. The stationary species, as always, makes way for the progressive one.

The flight of the Fulmar has frequently been well described, and once so perfectly eulogized by Edmund Selous in a passage of very fine writing that it would be impertinent to attempt a second account. 'Sliding, as it were, from the face of the precipice, and often from the most towering heights of it, the thin cleaver-like wings are at once, or after a few quick, flickering vibrations, spread to their fullest extent, and on them the bird floats, sweeps, circles, now sinking towards the sea, now cresting the summit of the cliff, but keeping for the most part within the middle space between the

two. Ever and anon it sails smoothly in to its own rocky ledge, pauses above it, as though to think "My home!" then, with another quick shimmer or flicker of the thin shadow-wings sweeps smoothly out again, to enter once more on those wonderful down-sliding, up-gliding circles. . . .'

The most wonderful feature of the flight of 'this dream of glorious motion, this elemental spirit of a bird', is the marvellous efficiency which produces an effect of complete effortlessness. It sails into a tearing gale with no more effort than a feather floating before the breeze. It banks so steeply that the outstretched wings are held perpendicularly, seems as if it is going to turn right over, and then comes gliding down the wind at the same speed at which it rode into it. So it continues to swing up and down the surface of the cliff, sometimes sweeping up to the ledge where its mate is sitting. All its movements are regulated by its tail or its feet, and by the manner in which the wings are regulated. The bird surrenders itself to the air, and the wind does the rest: occasionally it will give a flicker, but most of the time the wings are outstretched and taut.

One cannot help remarking, nevertheless, that the Fulmar has a very fixed type of flight, and enjoys a very narrow perfection.

Several attempts are made before the bird succeeds in landing safely on his ledge. There he lies down before his lady love, and the pair gaze up worshipfully into each other's eyes. Presently the male stretches up

his white neck and, with his curious mandibles gaping their widest, begins to wave his head up and down and from side to side, rhythmically and ecstatically. Soon the female bird responds in like manner, and the waving contortions of gaping heads continue for some time, the beaks frequently touching. I have never seen food actually transferred from male to female during this strange nuptial rite, but it is almost certain that some sort of food (probably in the shape of oil) is regurgitated. While they are writhing and squirming their necks in this manner, both birds appear to be deeply moved, and give tongue in an excited, guttural manner, 'ok ok ok ok ak ak ak AK AK' (crescendo). Then the male slips over the edge and falls almost to the water in a fluent curve, sweeps up and round, and returns to his mazy motions. Altogether a strangely primeval ceremony.

And by the way you have only to say that you have seen the Fulmar WALK to have a host of ornithologists calling you a liar. Most bird-watchers seem to think that the walking of the Fulmar is a fact of observation which has long been disproved and discredited. Many of them also refuse to believe that the Kittiwake dives. Yet more than once the writer has had the peculiar misfortune of seeing (on the same afternoon too) Fulmars walking upright on their ledges, and a whole flock of Kittiwakes plunging into the sea for fish. Perhaps an apology is necessary to all those watchers who are convinced that neither bird can perform such

feats. I am aware that the Fulmar usually shuffles along awkwardly, as though its legs were incapable of supporting its body, but where the ledges are smooth and level it will stand upright and WALK—what is more it can RUN. As the Americans used to say: Yes, Sir!

Cormorants are most beautiful birds. Statuesque on their white-splashed ledges, they too writhe their steel-blue necks and white glaring faces all day long. In their tall, bulky nests (some of them are veritable pillars of seaweed) the black, woolly youngsters are growing rapidly and eating enormously. When the adult bird comes flying in from the sea, his black body stiff and poker-like and his bronze-green vans beating creakily into the cliff-face, the young bird shoots up eagerly and immediately the parent alights fairly rams his face into his sire's gullet, taking thence a sticky mess of half-digested fish which it swallows at once. Then it relapses into stolid, silent impassivity from which only the prospect of another meal will rouse it. Feeding is going on continually and there is a confused outcry of all kinds of noises, squealings, chatterings, crowing, and those deep sepulchral notes which only adult Cormorants can achieve. Very sage and venerable birds.

The colony of Herring Gulls and the pair of Great Black-backed Gulls are quite close to the Cormorant ledges, but the birds are not so interesting or picturesque. The Black-back's gruff 'owk owk owk'—a sardonic mirthless laugh—resounds above all the other

cries when a human being approaches, and frequently the sitting bird will leave its eggs and fly anxiously around. The Great Black-backed Gull is one of the most powerful and ruthless of all our British birds. It fears no creature, not even the Peregrine when it comes twisting and hurtling round a corner of the cliffs, but as soon as a human being appears on the rocks below it grows apprehensive and nervous. Kittiwakes are quite undisturbed when you are only a few feet below them —some of them nest quite low down, and the Fulmar will watch you almost languidly with her large, dark eyes until you can almost touch her; but the Great Gull, master and tyrant of the seas, is afraid.

Herring Gulls fly constantly round and round in front of the cliffs, but compared with the graceful Fulmars they seem clumsy, and frequently they are borne out far to sea by gusts which are too strong for them. They have a charming knack, however, of holding themselves dead still in the wind just opposite their mates sitting on the eggs. This, of course, is for a mere moment, but it seems sometimes as if the flying birds were constantly attempting to perfect this pretty trick. Both sexes help to incubate, each bird taking its turn at the proper time, and those that are free amuse themselves by giving themselves up to the wind currents, soaring and drifting with the most obvious enjoyment.

Sooty-backed Guillemots and glossy Razorbills in black and white, stand stiffly row on row—even those that are sitting contrive to maintain a half-erect, mili-

tary appearance. Some of the pairs still go through a performance which can only be described as billing and cooing, but the majority stand motionless, impassive and sheep-like. Every moment birds come dropping from the ledges and go whizzing out to the open sea, while others come spinning in to the cliffs with their long black bills laden with slim fishes, some of which are still twitching.

Pale blue Rock Doves and dusky Jackdaws keep disappearing into cracks and holes which are invisible from below. Of the Jackdaws there is quite a colony, and their constant chacking as they flap about together, or rise in a body quarrelling, can be heard weakly from below. Nor are they the only non-marine species breeding here. Crowds of House Martins fly round the bases of the cliffs, and looking up one can just discern their nests minutely plastered into nooks of rock-face. Accustomed as we are to seeing House Martins near houses, we tend to look upon such a site as this as being slightly unusual, although it is quite obvious that the birds must have used such situations long before houses were thought of. Even so there is still something vaguely unfamiliar about Martins hawking for flies beside the blue sea.

The Starling, of course, is nesting here. No matter where you go, on moor, mountain, marsh, wood, field, estuary or sea-cliff, you will never succeed in escaping this flourishing species. On the cliffs it finds all kinds of little holes which no other creature would

ever trouble to consider as a possible home. It is amazing to watch the birds come flying over the top of the cliff (for not even a Starling can find worms, beetles, flies or larvæ among the rocks), and go shooting headlong into the holes. For a moment it looks as though the bird were dashing itself down into the rock face.

Olive-striped Rock Pipits flit anxiously about the bases of the cliff, with beaks full of insects. Their nests of young are hidden on the grassy slopes.

One question which everyone asks is how these cliff-breeders contrive to get their young birds down from the great heights on which they are born without their being dashed to death on the rocks below. The problem is one which occurs to everyone immediately, yet it is one which no one seems to have bothered to elucidate. Most young birds, especially after they are fledged have a definite instinctive fear of falling. I have seen a young Jackdaw not yet able to fly clutching in absolute terror to the rock-face at the summit of a high cliff, and looking almost as helpless and desperate as a human being would in similar circumstances. It is a fact that at the Farne Islands many of the young Puffins and Guillemots simply fall from their ledges, and survive unhurt, but this is not the normal method of descent. Probably the majority of such youngsters drop over accidentally (as many of the eggs do), for it is obvious that in most situations—the Bass or Flamborough cliffs for instance—a fall would not have such a happy conclusion, even though the adventurer did

only weigh an ounce or two. In most cases it is probable that the parent birds carry the young in some way or other—possibly holding the downy chicks in their bills. It must in all fairness be added that no one ever seems to have witnessed such an act (though so excellent an authority as Howard Saunders was convinced that the descent was made in this way), but this does not prevent the possibility of their transporting the young during the night. Bird-watchers who have spent practically a lifetime with the Auks admit that they do not know how the young birds make the descent from the perilous heights. In the case of the Gulls, Petrels and Gannets the chicks remain in their lofty nests for weeks until they are fully fledged, and then when their wings have been sufficiently developed and exercised they are able to use them to break the fall, and flutter tumbling down into the sea. Parent Gannets and Kittiwakes nurse their young assiduously, and see to it that there is no danger of their offspring falling—both young and old are obviously aware of the dangers of such an accident. Probably the great majority of the Auks reach the water in this way too, for large numbers of young birds in a fairly advanced state are to be seen being tended by their parents on the ledges.

It is obvious in such a problem as this that the solution is a varied one. In other words the young Auks reach the water in a number of ways. Young birds in down that are to be seen following their parents on the water may either have fallen down, or have been car-

ried by the adults, while those which reach the water later on are probably strong enough to flutter down unharmed.

As always in investigating a problem of wild life we come to the conclusion that there is no fixed rule.

Chapter IX

ASPECTS OF THE RIVER: JUNE



By the middle of June the heronry in the water meads is practically deserted. Only a few nests still contain young birds, and the boisterous activity of April and May has died down into an impassive silence. Flies hum drowsily about the leaves or buzz angrily when the branches are put aside. Occasionally an old Heron comes beating over from the river heralding his own approach with a raucous, earsplitting cry. Straight into his own tree-top he flies, waves his huge wings a moment to balance himself, then folds them, and slowly steps on to his nest. His arrival is immediately marked by a terrific outcry from the young birds. 'Kakakakak' they cry continuously, so hysterically and confusedly that it sounds as if some desperate fight is being engaged in. After a minute or two the shrieking of the young and the savage 'frarrks' of the parent grow calmer, but for ten minutes and more weird sounds continue to emanate intermittently from the bulky nest. The young Herons give a loud explosive 'chik' and the old one snaps his mandibles in mysterious fashion—as if both parent and offspring

were angry with each other. Beneath the tree the fragments of their blue eggs still lie, thrown overboard at the end of March.

For some time the old Heron stands guard over the young, hunched on the edge of the nest and quickly turning his yellow bill at each new sound. The young, now almost grown to full size, but still unable to fly, sink back impassively into the cup of the nest. After a time the old bird seems to be struck with a sudden thought. His long attenuated neck unfurls, his head is held rigid a moment, and silently he breasts the air. Over the wood he goes flapping across to the river. A moment later his mate, hitherto invisible to us, flies in to the nest and the dog-fight noises begin again.

The river, one of those slow Essex streams with quiet backwaters and long stretches of weeds and white lilies, is not a haunt for many birds. But in the warm days of June when the meadows are deep in grass and squadrons of scarlet-finned fishes waver in the sunlit water, it is a pleasant place. Sparkling dragon-flies resplendent in azure or emerald hover here, their stick-like bodies now motionless above the surface, now a bright flash as they dart suddenly off. A startled Water-hen splashes out of the reeds and several woolly little ball-like creatures scatter hastily into cover. A young Waterhen newly hatched is always worth watching, being a model of almost purely instinctive behaviour. Even when he is in the egg his mind seems to be clear and seems in some way to have a conscious grasp of the

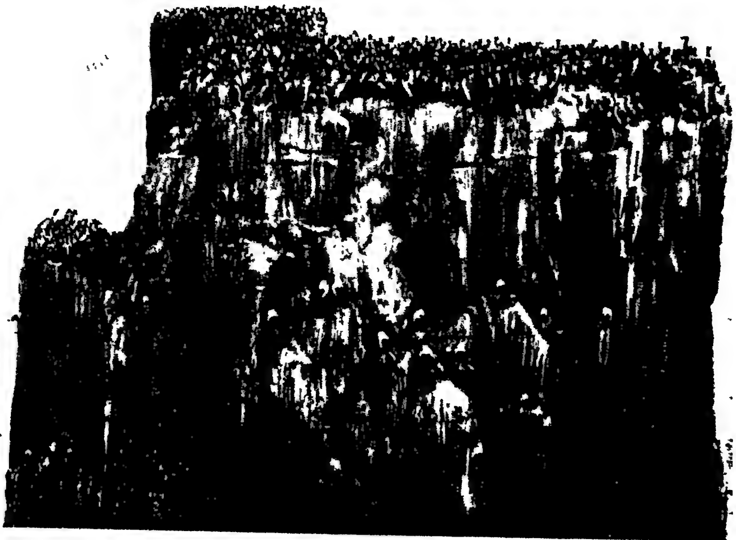
situation. At first his efforts to extricate himself from the shell are spasmodic—blind, vigorous peckings followed by pauses of several seconds of quiescence and preparation for the next attack. When the chick is ready to make his exit from the egg (his entry into the world), even when the shell is only slightly cracked, he is already fully prepared for life. Already he calls loudly from his little home 'clee cooée' when he hears his brothers following their dam across the water. She is so busily occupied in attending to all the other chicks already hatched that she leaves off brooding, except of course at night. So out he comes, half an orphan, a strange ugly little fellow with big black legs, black hair and a pink and white nose.

For the first few days he follows his mother, keeping to the reeds or foraging in the long grass and occasionally making an accompanied tour of the water's edge. Even in the early days, however, he strays a good deal on his own picking about for himself. But most of his food is given him by one or other of the parent birds—insects, weeds, bread, even dead fish. The chick is not dainty in such matters. Most of the time he is with his fellow chicks, carefully escorted on an expedition by one or both parents. (The adult cock bird often seems to be rather a lazy individual and leaves his wife most of the domestic and educational duties. He prefers to doze in the sun, and leads his own uneventfully serene life of pure content.) From the very first moments of his existence the chick is on the alert for danger, recog-



NO JOKE: MEADOW PIPIT FEEDING YOUNG CUCKOO

J. Kershaw



GUILLEMOTS AND KITTIWAKES AT THE FARNES

By courtesy of 'The Northern Echo'

nizes it and displays an inherited fear of man. No engrained-complex seems necessary to produce this fear. His senses are as alert and as active as the adult's—in fact sometimes he is the first to spot the approach of danger. When alarmed by the sudden appearance of a human being the parent bird usually flies off with a great squawk and, if the intruder remains, keeps up a constant loud 'wuk wuk' from a safe distance, which serves as a warning signal to the young not to show themselves. Also it is an expression of her own mixed emotions, fear, anxiety with not a little anger (shown by the continued jerking of her white tail). Her behaviour, unlike that of many avian mothers in the presence of man does not suggest terror or distraction, and this is certainly because she realizes that her young are well able to look after themselves. At a moment's notice the chicks immediately drop their shrill piping notes. They disappear completely, taking advantage of the slightest cover to hide under. If discovered they run with a rapidity which is astonishing for a young bird scarcely three inches high, and if they are further pursued they soon learn to dive and hide again. It is amusing to see one attempt to dive. Usually the bird is so light that its back shows over the surface and only its bald pink head is submerged.

Snug in her fragilely slung nest among the reed stems the hen Reed Warbler watches us, ready to go off any moment. She does all the sitting and the cock bird frequently brings her food, a beak crammed full

of black insects. He is never far away and much of the time he spends near at hand reeling and chattering his bright song. It is not a brilliant or even a sprightly effort, having even less purity and variety than the Sedge Warblers, but it is quieter and less jarring. A contented happy song.

The smooth and creamy Reed Warblers do not often leave their nest untenanted, perhaps as a precaution against the possible visit of some wandering Cuckoo. Reed Warblers' nests are not difficult to find and are used as frequently as any other species as a repository for the parasite's egg. A Cuckoo will hunt up and down a reed bed or a shrubbery, entering from time to time to find the site of a suitable nest. It will take no notice of the frantic protests of the rightful owners but will doggedly continue the search. If they find a Cuckoo thus occupied the Reed Warblers leave their nest and follow the intruder keeping up a continuous 'tchek tchek tchek tchek tchek'—half anxiety, half anger. They will even fly frantically in the Cuckoo's face although never venturing a real attack. The Cuckoo takes no notice and refuses to go away.

This behaviour of potential victims is more than interesting. Obviously they hold the Cuckoo in horror and in some vague way realize what is afoot. Yet when they find the stranger's egg in their nest they seem to be quite unaware of a change. The disappearance of their young, even the presence of them dying in the herbage below the nest, passes unremarked. The young Cuckoo

is fed with the same enthusiasm, the same eagerness that their own young would have received—even the neighbouring birds, as if recognizing the need for co-operation in an exceptional case, will assist in feeding the young monster. . . . And yet the mere presence of a female Cuckoo prowling round their nest is recognized in the beginning, somehow, as being evil and dangerous. How complicated are the workings of bird-mind! Their behaviour at first is evidently governed by some weak kind of racial mneme which indicates to them the significance of the Cuckoo's movements. Only later when the Cuckoo is no longer present this instinctive abhorrence is not strong enough (at any rate the presence of a strange egg is not sufficient stimulus), and their own native intelligence is too slight, for them to realize the threat to their young.

A pair of blue Kingfishers flash past over the surface. They have a nest further along where the river is held in on one side by a low clay bank. There they have quarried a sloping tunnel about four feet long, at the end of which in a fishy mess the young birds crouch. Every five minutes one of the adult birds may be heard piping exultantly and, whizzing diagonally across the water, it shoots like an arrow into the tunnel mouth. A moment or two is sufficient for the distribution of the fish, and out it flies again and down river to the old fishing perch for more.

Surprise is often expressed that so beautiful and brilliant a creature as the Kingfisher should keep so foul

a nest. The marvel is that both young and old preserve themselves unspotted. Foul the nest most certainly is. Slaver of ancient fish juices and excreta from the young drool from the wet clay opening, so that it is a serious business if you wish to see the eggs or the gaily feathered young. To speak plainly it stinks abominably.

A bird which nests in a tunnel such as this might be thought to be perfectly secure from animal enemies. A tunnel in a bankside is far from being an impregnable site nevertheless. I have seen a stoat systematically enter one Sand Martin's nest after another, hunting for young birds. The litheness of its long snake-like body was tested to the full before it could reach some holes, and on its exit its sharp little face turned quickly from side to side as it looked for the surest foothold to the next. The danger of an awkward fall was very real but into them all one after another it went, and sometimes on emerging significantly licked its chaps. No doubt it cleaned out the whole colony.

The sight of a Barn Owl hunting in the broad sunlight of a late summer afternoon is for most people a surprising sight. It is not, however, in any way irregular. With a nestful of downy young, craving for food, the Barn Owl often finds that he must supplement the night-time and twilight with a few extra hours of daylight hunting. All over the flat green meadows of the riverside he flies, his wings beating lightly and buoyantly, then gliding. Then a turn, a plunge into the grass, and he lies with wings outspread over the victim. Next

minute he is off in a bee line for his hollow tree with a mouse tucked away in his talons. In flight he seems to have no body and to be all head. From his white face his soft dark eyes turn to watch us vaguely as he passes. A few moments in the darkness of the tree and he is out again hunting. So flat is the landscape that one can watch him for a mile or more, slowly examining every inch of the meads, now bobbing off in a fresh direction, now rising to hover on rapid wings, but always continuing until a capture is made.

Meredith's oft quoted snippet about this bird: 'Lovely are the curves of the white owl sweeping', impresses many as a beautiful line. To me it seems a sham —a slovenly piece of writing. It passes itself off upon the reader as exhibiting careful technique and accurate observation. A good deal of its intrinsic integrity as literature depends upon its fidelity to the facts. But a Barn Owl neither sweeps nor curves.

Chapter X

OFFSHORE: BEING THE LOG OF A LANDLUBBERLY BIRD-WATCHER



The harbour bell was jangling hysterically: it was six o'clock, the time of the full tide. With much manœuvring and much filthy language from all concerned a small but exceedingly dirty coal-freighter cast off and nosed her way through the narrow harbour gates out into the spacious waters of the Firth of Forth. She was bound for Rouen. The hollow, heavy sound of her engines became less uncertain, and turned to a passionless, regular throb, a dead rhythm which was to last until the boat was berthed at the French quayside. The date was July 14th.

About half an hour after leaving harbour the little tramp found itself suddenly smothered in a patch of dense white fog. Even the tops of the masts were quite lost in it, and the men aft swilling the decks were like faint blurs moving on a dense white screen. Feathery fronds of it went trailing across one's vision, palpable and wet, yet softer than gossamer. Immediately the engines were down to half speed, and with her siren booming sullenly and menacingly the boat groped her way slowly through, with a watchman forward in the

bows, and the captain and mate listening anxiously as hard as they were able. Every now and then the siren's warning seemed to be answered by the powerful blaring of a foghorn somewhere vaguely ahead. Then the tramp came out of the fog as suddenly as she had entered it, and once more we were sailing in the evening sunshine under a blue sky. In front (I make no effort to ensure the correct nautical term) lay the immense, mountainous pile of the Bass Rock, its whitish cliffs rising sheer out of the water to its green, hilly top. Actually the Bass Rock is almost black in colour, but the volcanic rock is made to look like chalk in the distance by the countless hordes of white sea birds which settle on it, and by the excrement they leave. As we drew nearer the ship became surrounded by sea birds. Flocks of little Puffins, floating lightly on the water like corks, were fishing together, some with several fish already dangling from their brilliant, crimson beaks. They were quite unperturbed by the passing of the great iron monster, and sometimes would rise calmly underneath the very bows, give one upward glance at the figures peering over the edge, and go under again, oaring their way downward through the green water with wings and feet. Others in mid air went dashing past towards the rock, their black wings a vague, vibrating blur on each side of their bodies. Here and there were Guillemots, some of which already had a young bird with them, a little sooty ball of fluff that went down after its parents. Further off a Great Black-backed

Gull kept stooping at a number of these birds, which dived in terror whenever it came overhead. We saw no murder actually committed, but it was plain that sooner or later several young birds would provide a mouthful to be gulped down by this ruthless butcher.

The Razorbill was not much in evidence. It is a darker, glossier bird than the Guillemot and, looks and is, a more interesting bird. It is more squat and altogether more compactly built. Its curiously shaped bill is black, and in summer has a white groove crossing it transversely. It is not quite so fantastic an instrument as the Puffin's, but it is equally useful and efficient. A few Razorbills, usually in twos and threes, were to be seen here and there among the Guillemots. They lie on the water with their bills up, and with their half-spread wings resting on the surface of the water as if helpless, then dive without any apparent energy, as though they were wounded. Actually the purpose served by the open wings is to ensure speed in diving, as the wings as well as the feet are used to propel the bird under water—so they are half opened in readiness. In the extinct Great Auk, of which the Razorbill is a rough, miniature copy, this use of the wings had so superseded the normal one that the bird was quite unable to fly. The Penguins provide a similar example in a different group of sea-birds.

As the rock grew closer we steamed into a flock of Gannets, fishing. The great white birds in all stages of plumage kept sailing past on outstretched wings, so

near some of them that we could see them turning their heads (touched with pale bronze) and slanting their long, pointed tails as they turned. Every moment a bird would halt on its questing flight, make a half turn, and with its wings half closed come crashing down into the water, sending up a veritable spout of spray. Sometimes when a bird plunged close to the ship, which was not often for they are much more shy than the Auks, we could hear a distinctly violent smack as it hit the surface, and could see how deeply the great white bird plugged itself into the water. Perhaps it is worth noting that the wings are only partially closed during the descent, and that the drawings one sees of Gannets and Terns, plunging with their wings closed tight to their sides, are hopelessly inaccurate. Even when the birds strike the sea their wings are not completely folded. Sometimes the bird pursues the fish under the water, but usually it reappears on the surface near to the place where it went down. No fish is brought up, but the bird nearly always rests on the surface for a minute or two, as if to allow the capture to settle down inside before taking wing again. Some of the birds, as soon as they had made a successful dive, made a bee line for the rock, where, no doubt, the fish was disgorged for the young or female Gannet with much grunting, and waggling of head and waving of wings.

Birds of various species were now continually passing the slow ship, all making for the rock, which by this time presented a spectacle nothing less than awe-

inspiring. All round its precipitous cliffs, from the surf-beaten base to the lofty green summit, the air was filled with an immense multitude of white wings, wheeling and interweaving, rising and falling, some coming out from, others going into the shadow of the cliffs. High above Herring Gulls and Gannets were soaring round and round in hundreds, and the whole scene was constantly moving and changing. Through the glass one could see Gannets by the thousand sitting on the rock ledges opening their leaden bills to shriek as some bird came flying into the ledge with food, or waving their heads in excitement before their mates. Certain portions of the cliffs were tenanted by colonies of Kittiwakes and hundreds of these gulls were gliding up and down the cliffside in front of the nesting birds. Without the glass the scene was even more impressive for, though the details of the various birds were lost, the eye saw the whole scene as a tremendous unity. The whole rock was circled by a moving wreath of flying birds and whitened by the innumerable hosts sitting on their eggs. There certainly were countless thousands of them, and without any exaggeration it seemed at first that there were millions. A great flight of Starlings, or a winter gathering of seashore Knots can be very impressive, but when there are vastly greater numbers of large birds each with a wing span of six feet and more, together with hordes of other birds soaring and wheeling around a gigantic, majestic mountain of rock such as this, then the scene becomes stupendous. In some

parts of the world there may be even more populous colonies of sea-birds—the bird islands of Peru, for instance—but there cannot be anywhere a more dramatic and awesome spectacle than the Bass at the height of its season.

By this time we were being borne, very unwilling passengers, away from the Rock. Gannets still followed and passed us, off to find fish for their hungering dependants, and as they passed with their necks outstretched as if in eagerness the late sun gilded their pale gold heads and napes. Gradually the numbers grew thinner, and before long all business and activity was left behind. A party of Arctic Terns flew overhead calling harshly and excitedly, constantly pointing their coral bills vertically downwards, looking for the silver glint of some small fish turning near the surface. After the substantial-bodied and tremendous winged Gannets, the terns looked frailer and more spirit-like than ever, but the viciousness with which they darted downwards to jab themselves into the water showed quite as much determination. Occasionally a few red-nebbed Puffins still bobbed up into view or a distant Cormorant would go beating along the surface of the water to flap off across the firth to the distant Isle of May, but it was obvious that we should soon be in birdless water. Not even a gull followed us now. In an hour's time we should be round the great bluff of St. Abb's head, where the Fulmars breed, and into the open North Sea.

Suddenly, and again without any appreciable warn-

ing, the tramp had run into another bank of thick fog, through which for some considerable time we steamed in complete silence, save for an occasional bellow from the siren. To one who was perhaps just a little nervous of the sea, and whose knowledge of modern navigation was less than a child's, there came disquieting thoughts that these were ill-famed waters, and that somewhere near 'the waves flowed over the Inchcape Rock'. After a time there came from somewhere out in the fog the vaguely familiar call of some distant birds: 'chip-chíp! chip-chíp!' a bold sprightly call uttered evidently by a number of birds. After a time the sounds resolved themselves into a number of obscure shapes which came flying in from the open sea to the north-east, and began dancing about in the air around the masts. As soon as they saw the ship their calls grew louder and more vigorous, and in a few moments they had all alighted, and were clinging tit-like to the wires and ropes. The colours of these new arrivals were very assorted. Many were dressed in dark greens, others in dull yellows and gold, while a few whose sleek, satiny plumage marked them out from the others, had backs of richest crimson which gave off bright reflections like shot silk, as the birds turned and twitched in the rigging. They were Crossbills. Evidently they had quite lost their bearings in the fog, and a number of them were quite exhausted, which was doubtless the reason for their calling to each other when they caught sight of the ship. If the direction in which they were flying

when they came into view was any indication of the general line of their whole flight they must have come from Norway, where no doubt they had bred. The Crossbill is an early nester, often laying its eggs before February is out, and as it is not usually double brooded it is soon ready to migrate. I have watched the birds in larch plantations on the Teesdale moors as early as July 18th, so that the earliness of these particular birds was in no way unusual: in the famous Crossbill seasons the first birds are even earlier.

These birds could scarcely have flown less than four hundred miles (it is three hundred and eighty-eight miles from Bergen to Leith) and all day there had been a stiff south-westerly breeze, so that they had every reason to be weary. They clustered round the mast and took no notice of what was going on below. There were only three or four adult males, but for every one of these shining and crimson birds there were four in streaky brown and green. Going below for supper I happened quite by accident to spot one of the Crossbills in one of the boats. It had crawled in under the tarpaulin, and lay crouched in a corner with its eyes closed. When approached it half opened its eyes and made a half-hearted flutter, then calmly allowed itself to be picked up. Its eyes shut wearily, it lay limply on my palm, and when placed on my shoulder it made no effort to move. It was a young cock bird, certainly not more than four months old. Breadcrumbs and water failed to rouse any spark of interest in it: it was too

exhausted even to be afraid. Stood out there on deck, with the cold night wind on my face and a cheerless grey waste of waters in all directions, I held the feathered mite in my palm, and realized for the first time in my life what migration really was, and what it means to be weary unto death.

It was dark before we reached the Northumbrian coast, and at midnight the yellow light of old Longstone winked to us enigmatically across the blackness.

Next morning the tramp, doing some eight knots, was twenty miles off the estuary of the Tees. The Crossbills were all gone, except for my youngster who remained disconsolately under the tarpaulin—evidently a bad case. It was a sunny, sultry morning, and on all sides stretched the limitless blue water. An immature Puffin, minus the red bill, was seen diving by itself; and later a solitary speckled Gannet (a bird in its second year), was seen flying above the water at a distance. These lonely non-breeders were the only birds seen during the whole morning. By twelve o'clock the Yorkshire coast came up over the horizon, a hazy, purple line with thunder clouds massing over it. By two the boat had Scarborough Castle abeam and the long white line of the Flamborough cliffs was seen gleaming low down to the southward. Soon it was pushing its way through the water with Puffins bobbing up and down on both sides. Flocks of diving birds began to appear more and more frequently, more numerous and more extensive than we had seen in the

Forth. As we passed the Flamborough cliffs, still several miles out, the sea presented a most amazing spectacle of activity. Here and there in the fields of blue water were crowded dense patches of diving birds, Guillemots, Puffins and Razorbills, which literally darkened the sea for hundreds of yards. Most of these flocks were on the landward side of the boat, but there were others still further out to sea. The flocks were usually comprised of one species only, and here and there was a solitary bird fishing by itself. Birds were constantly dashing overhead in the direction of the cliffs with silver fishes dangling from their beaks. Some of the Puffins carried well over a dozen at a time. It is now well known that the Puffin's quaint bill is provided with interior, hook-like projections which enable it to carry several fish at a time, and still go on catching others. The advantages of such a device are obvious: the bird would soon be exhausted if it had to fly twenty miles each time it fetched its mate or young bird a single fish. This peculiar device, with which evolution has equipped the Puffin, has been dwelt upon at length by several writers, who seem to forget that other sea-birds have similar powers, and that even an ordinary passerine species can fetch twenty or more caterpillars in its bill at a time.

The blue sea, patterned and streaked with flocks of dark birds, with the grey-white cliffs behind made an altogether delightful scene. Such concentration and activity! Once or twice we put up a few Fulmars,

which first paddled along the surface, and then went winnowing and careening off, to descend once more at a distance. They are inspiring birds to watch as they go flickering and sailing along a cliff-face, banking and turning and moving in constant fluent arcs; but out on the open sea they are dull birds to watch, merely floating on the surface and looking quite undistinguished in the air. A few Gulls, Herrings and Kittiwakes for the most part, were also to be seen in the air, but generally speaking the Auks had matters pretty much to themselves.

Flamborough faded into the distance astern, but still the flocks continued to fish, although rapidly growing thinner. We saw one Guillemot dashing off to the cliffs long after we had left them behind, and calculated that if it flew in a straight line it must fly at least twenty-three miles before it reached its destination. There its impatient mate and hungry nestling would doubtless gobble up this so strenuously earned provender in the shake of a bill.

In my book *Quest for Birds* I quoted the Guillemot as the typical case of a species which derived no advantage whatever from nesting in a colony, and one which would actually profit by occupying more cliffs and breeding sites than it does now. I have no intention of embroiling myself further in neo-biological debate, but the case of the bird in question may be noted in passing. It had to fly twenty-three miles before finding a spot where it could catch a few fish. We were asked by the

theorists to believe that the ways of evolution make survival progressively easier, yet here surely the bird is the victim of a system which is far from beneficial to the species. The Guillemot, which at most times of the year hardly flies at all, is forced during the breeding period to fly over a hundred miles a day—the logic of biology must be somewhat strained in its attempt to prove the foresight of Nature in endowing a species with a breeding system such as this. It is obvious that all the auks are primeval species which have advanced but little, either in intelligence or adaptability, since their inception on the evolutionary scale. The whole family is static. They cling to one or two hereditary breeding haunts where they abound, and where they have continued to abound for thousands of years. There is no reason why they should not continue to do so, for there is no conceivable trend of civilization which is likely to destroy their breeding haunts, and the birds are physically active and hardy enough to meet all emergencies. The Great Auk, like the Dodo, was a freak, and sooner or later was bound to go under, but it is very unlikely that we shall ever see another species of this family go the same way, in spite of the Oil Menace which causes thousands of these birds to be washed up dead or dying on our coasts each year.

From the Humber to Le Havre the number of birds observed might well be counted on one's fingers—a pair of early Swifts migrating southwards, a few Herring Gulls idling about off the mouth of the Thames.

In mid Channel we saw a Great Shearwater for a moment, a brown and white bird that went swinging and shooting over the waves. Otherwise nothing.

The mouth of the Seine with its wide flats, the beautiful winding river that flows steadily through hayfields and orchards, with rose-gardened villages and gentle abbey towns, the wooded cliffs by Caudebec where Ravens and Buzzards breed, are no part of our story here. On the return trip we saw not a single sea-bird of note during a day's watching; and, as it was after nightfall this time when we passed the Yorkshire coast, we must forget all the interim and imagine ourselves once more on the little tramp on the last day of its patient homeward journey on the 22nd July.

Early that morning we were off the Tyne, and sailed close past a flock of forty or fifty Fulmars which were collected in a close pack, feeding in the water. They seem to leave their breeding ground in a body, young and old together, and afterwards resort once more to their vagrant gypsy life on the high seas. Almost certainly they had come from the cliffs near South Shields where I had watched them breeding barely three weeks before. The young Fulmar is a browner, more mottled bird than its parents: we saw more than one young bird floating dead on the surface, but could find no evidence as to how they had met their deaths. Off Dunstanborough, where these birds also breed, another flock of Fulmars was idly desporting itself on the smooth water. It seems probable that the same birds, which breed on a

cliff in summer, may keep together through the winter in their wide wanderings over the ocean.

It was a particularly clear and sunny day, and the water was so clear that one could see yards down through its green and purple transparence, where dozens of pale medusæ were floating, like strange flowers gazing up through the hyaline depths. Every moment we kept sighting great white birds, as large as Swans they looked, floating on the water, which the glass showed to be Gannets, resting after a meal. During the breeding season these birds are to be seen fishing every day off the Northumbrian coast, although the Bass Rock, seventy to eighty miles away, is their headquarters. Some of them are doubtless non-breeders, but certainly not all: the distance is a mere trifle to the bird. When the birds dived, the white jet of foam against the dark blue background of sea could be seen for well over a mile. Once we saw a diver of some sort, a long-necked brown and silver bird that kept disappearing in long rolling dives—species unknown, but most probably a Black-throated Diver considering the extreme earliness of the date.

After the Bass Rock and Flamborough, the Puffins and Guillemots of the Farnes caused only a mild sensation, and as we were too far out to sea to see much of the islands, most of the time was spent in watching the heavy dives of a number of black and white Eider Ducks which had strayed rather far out. There were no Terns, few Puffins and not many Guillemots or Razor-

bills. Evidently the multitudes were all ashore. While we were off the Farnes, however, we saw one really interesting spectacle. A fishing smack was hauling in its net. The boat itself was almost invisible, smothered in a vast cloud of gulls. The water all round the boat, the air around, and above it to a great height, was filled with a moving, screaming mass of birds attracted by the fish—Common, Herring and Great Black-backed Gulls, but for the most part Lesser Black-backs, all apparently ravenous and mad for fish. Long lines of other gulls, attracted by the confused chirm of noise proceeding from their fellows and by the prospect of a chance fish, were trailing over the sea in the direction of the fishing boat. The crowd above grew higher and denser, spiralling up into the blue, their white wings shining and shimmering in ever-moving confusion, while the shrieking and squealing grew ever louder and more insane. If this is what happens every time a net is hauled in, it seems almost a miracle that we can ever manage to get fish to eat at all!

From the Farnes to the Forth there was nothing of note. A single Herring Gull, after gliding in the wake of the ship for some time, perched itself precariously on the swaying top of one of the masts (like Coleridge's Albatross), and remained there until we were well into the Forth. No doubt it appreciated the lift.

And so after our slow and patient twelve hundred miles sea journey we returned once more to the Forth. On both shores the misty, emerald land rose up to the

distant hills crowned in the late sunlight. Slowly the land smoothed by on either hand, the brown ruin of Tantallon Castle to the south, and the mighty Bass with its moving chaplet of flying Gannets and gulls still wreathing the summit. Opposite Kirkaldy the water was covered with a flock of black-backed birds with white underparts. They rested quietly on the smooth surface, and when the boat approached went winnowing off close to the surface. In lines of nines and tens they went, one after another, like Fulmars with black backs. They were, of course, Manx Shearwaters, but it was rather surprising to find such large numbers of these birds in such a place. Where they had bred, and what had been the starting point of their migration, was shrouded in mystery. They made no sound as they crossed beneath our bows, and went flying over the surface into the misty twilight.

The lights of Burntisland began to twinkle on the northern shore, and those of Leith further ahead to the south. Here and there a red warning light blinked suddenly, then stared over the pale, smooth water, and the great feathery shadow of the Forth Bridge, far off, reared itself in the thickening darkness. We had missed the full tide, and so had to wait till the dawn for the customs to come aboard. The engines gave one last spasmodic turn, and then stopped . . . our journey was over.

So much for my log. Looking back on it, my humdrum little voyage seems like a strange, delicious dream

—strange because it was quite unlike anything that I had previously imagined. I give this account of it for what it is worth, because it appears to me that the bird life of the open sea is a phase of ornithology which is very much of a closed book to us. How much do we really know about our sea-birds? A tremendous amount of work, time and energy is devoted to the study of British birds on land, but when it comes to the sea-birds we are content to guess or to satisfy ourselves with such observations as can be made from the shore. The difficulties of the work are, of course, tremendous; but I doubt whether among all our seagoing men there is a single ornithologist who really watches birds regularly at sea. If there is, then his experiences will make valuable and interesting reading.

Several years ago Dr. Eagle Clarke did excellent work, spending considerable stretches of time observing bird movements from a lighthouse—a step in the right direction which has unfortunately never been followed up. There are dozens of excellent bird-watchers who would, of course, be only too willing to spend a lifetime in such work, were it not that the grip of vicious circumstances prevented them from so doing. The necessity of earning a living, and following an occupation which makes extensive demands upon his time, may not entirely prevent a bird-watcher from doing good work, but it cannot but exert a cramping influence. The result is that in many directions we are still as ignorant as ever.

Where can we find a really knowledgeable account of the movements and the behaviour of the Manx Shearwater or the Storm Petrel? How much is really known of the Skuas? What is the status of such birds as the Surf Scoter, the King Eider, the Great Shearwater—are they mere vagrants as the text-books suggest or are they regular (if uncommon) visitors which are usually overlooked because there are no observers to record them? And what of the autumn movements of our British auks? Excellent accounts have been written of the behaviour of all these birds during the breeding season, but we are almost quite ignorant of their movements and behaviour throughout the remaining three-quarters of the year.

Even a short journey out to sea reveals birds which would never be seen by a watcher who spent his life ashore. A friend of mine who had done a great deal of bird-watching at the Teesmouth, had occasion to travel from Middlesbrough to Newcastle by ship. He had not been ten miles at sea before he saw Manx, Sooty and Great Shearwaters, species which he had never seen before in years of careful watching. There should be more watching of this kind, especially in autumn and winter, and it is a pity that some of the work which is now being devoted to bird problems already overworked could not be diverted to the compilation of an exhaustive and authoritative book on our British sea-birds.

For myself I must plead ignorance with the rest. I am

sorry to admit that my account does not add a single scrap of knowledge to what is already known—it is merely intended to show that what we are sometimes content to dismiss as the barren, desolate sea can be, and frequently is, strangely fertile and rich in birds.

Chapter XI

FOX COVERT



Surely of all human tasks that of the gamekeeper is one of the most thankless. Serving as he does an outworn and stupid system of game preserving he is forced to lead an existence apart from his neighbours; he is in danger of becoming unpopular in his district, and worst of all frequently finds difficulty in satisfying an insatiable master. In the past he has come in for a lot of criticism from the pens of naturalists and bird-lovers who are for ever complaining that not only has he been responsible for the destruction of hawks and general 'vermin', but that he has also had a hand in the deaths of many birds not harmful to game. Of course all this is true, every bit of it, but it seems worse than useless to blame the keeper: as futile as to denounce safety matches for causing a fire. The gamekeeper is generally a simple man, and outside a narrow limit often knows less about birds than the average educated citizen.[1] Do not blame the keeper. Blame the vicious,

[1] Often. I think it only fair, however, to note that the finest all-round field naturalist as well as the most successful bird-protector I know is a gamekeeper.

selfish system of which he is a mere tool. It is his job to kill 'vermin', hawks, or anything like them for that matter (it does not pay to take risks), just as it is another man's to repair shoes or drive an engine. The cobbler and engine driver are at least fortunate to the extent that they serve a useful purpose. The gamekeeper cannot even claim to be a useful member of society.

To the point, however, before the chapter degenerates utterly into a societary disquisition or a quasi-Marxian tract. Of all the keeper's avian enemies perhaps the most deadly is the Sparrow-hawk. In most parts he will account for about a dozen of these birds every year, and wherever he is situated it is the one creature which he never spares and which he does everything in his power to destroy. And it is a bird which scarcely anyone speaks well of. It is a killer of small birds and is therefore not in favour with the sentimental ladylike members of the protection movement. It is an outcast. 'Deserves no mercy', 'Protection not advocated', 'Definitely harmful and destructive', are phrases culled at random from actual bird books whose authors profess to be bird-watchers. This being so let me say right away that the Sparrow-hawk, our one true British hawk, is one of the finest birds we have and deserves protection as much as any other. The reason why it has hitherto been decried is largely because many writers professing to be bird-protectors have themselves been hand in glove with the game preservers, and have consequently feared to offend. Because

it strikes down a few pheasant chicks it must die.

It is no exaggeration whatever to say that our British hawks have been and are being killed off to please a selfish and ignorant minority of landowners. The injustice of it must be obvious to everyone. To the bird-watcher (I do not say 'lover' for most 'bird-lovers' are nothing of the kind) the stupidity of it all is enough to make his blood boil, especially if he has watched the bird at home and learned what a noble and admirable creature it is.

At the end of April the Sparrow-hawk builds a bulky conspicuous nest of loose sticks, usually chosing those that come from the same species of tree as that in which the nest is situated. In general the nest is a flat untidy platform with a shallow cup in the centre, but occasionally one finds a nest skilfully woven of fine twigs—probably the work of old birds with a long experience of building. Frequently the interior of the cup is sprinkled with pieces of bark, and decoration in the form of sprigs of greenery is occasionally brought from time to time. In every case the nest is obvious to anyone looking for it, and almost as conspicuous and as easy to recognize as the Magpie's. This hereditary failing is one of the bird's greatest misfortunes, for it avails the species nothing for it to avoid danger throughout the year, if the keeper merely has to discharge his barrels into the nest and blow female and eggs to pieces. Nor is the Sparrow-hawk a bird that will learn by the bitterness of experience. I have known a pair

return year after year to a little larch plantation where their regular appearance is looked for annually and their eggs taken season after season. They still come.

Early in May four to six pale blue or stone-white eggs blotched as with dried blood are laid, and the female hawk begins the long duty of incubation which drags out for more than a month. I do not think there is any evidence of the male helping to incubate, although he frequently visits the nest side and possibly brings some of the green sprays which are constantly being added to the structure even after the young have arrived. It is the female, however, who throughout the whole cycle monopolizes the duties and it is not often that the male actually sets foot on the nest. When he is not away hunting he spends most of his time on guard in some neighbouring tree. His duty is to provide his wife with freshly killed food, and so the little blue dashing figure becomes a greater terror than ever in the woods and fields. He has his own circumambient method of approaching the nest when bringing food, usually an indistinguishable handful of bloody flesh clutched in one yellow talon, and alights on a branch near by where he waits for the female to come and take it. Often there is a good deal of low whistling and whinnying before the exchange is completed. There are of course no fixed rules for ceremonials of this kind; indeed, after watching two or three nests one's main impression is one of astounding disparity between the behaviour of individual pairs. One female is so bold

that she will remain on her eggs while the tree is being climbed; the next so wary that one never gets even near enough to see her leave the nest. Great differences in plumage are also obvious, some birds being dark with bold barrings on their breasts, others pale with scarcely any visible markings at all. To attribute these anomalies to differences in the ages of the birds is probably the correct solution.

During the early stages of incubation the female, warned by the watching male, is content to slip off as unobtrusively as possible at the near approach of human beings. When the eggs are nearly hatched, however, she sits closer and when driven off keeps up a nervous shrill 'ke ke ke ke ke ke'—a not unmusical note which rises in pitch and intensity when the bird becomes frantic for the safety of its eggs or young. If you remain by the nest she will fly round the territory under cover of the leaves, perching at points of vantage to eye you restlessly with her wild yellow eyes, or dashing off elsewhere to utter that fretful whinnying, half anxious half savage. Sometimes the male too will start up the upbraiding note, although in his case it is a weaker and a shriller cry. He keeps at a safe distance and well out of sight, but the female (always the bolder and more domineering of the two) will sometimes grow so bold as to perch on some open branch and chatter down abuse on the intruder's head. Only make a sudden movement, however, and she is off in a flash, darting and swerving among the branches and out of sight in a moment.

When the young are hatched early in June she still remains at the nest, and apart from the actual hunting performs all the duties herself. And a most loving mother she is! For the first week after hatching the youngsters must be constantly brooded otherwise they catch cold and die. She sees that all are covered, however, and fairly pushes the last one underneath her breast. When food is brought by the male it is at first torn in pieces and delivered to the young piecemeal, but after a week or two the young are strong enough to digest anything, and the dead creature is given to them to eat as they please. Some observers say that during the early days the male hawk tears off the head of the killed bird, so that the young may not come to any harm through biting off more than they can chew! I myself have not observed this, as the prey is usually too badly messed up for one to be able to distinguish whether there is a head left on or not. For the most part the young are fed with small birds—blackbirds, hedge-sparrows, chaffinches and such-like chiefly, although there is many an exceptional catch. I have even seen the remains of a Golden Plover near the nest. Most of the victims seem to be roughly plucked by the male as soon as they are killed, and this saves the female additional trouble by allowing her to feed the young birds almost immediately, and secondly it does away with unnecessary litter at the nest. Most of the stories of this bird's nest being strewn with dead bodies of birds must be either exceptional or untrue. Usually the nest is kept

fairly clean, and all refuse is removed daily by the scrupulous female.

As the young grow stronger their appetites increase enormously, and the female begins to leave them more frequently and for longer intervals while she assists the male in the hunt. Yet she is never away for very long, for the attraction of the nest is great and when all the young are well covered she will lie on them relaxed, with the most obvious pride and the deepest satisfaction. Through the night she shelters them from the cold. At midday under a blazing sun she will stretch her wings over them, stand panting to shelter them from the excessive heat as best she can, even though it is obvious that she is herself feeling it most acutely. If there is rain, or a thundery downpour, she contrives to place her back to the storm and shut out the wet as effectively as she is able. For to a young bird in down rain is one of the greatest dangers.

When the young birds become fledged the difficulty of brooding them all becomes accentuated, but this does not deter the mother from making the attempt. Puffing herself out until she is almost twice as broad as usual she contrives to cover the twitching, heaving mound of young hawks. She is as careful and thoughtful for them as any human mother for her child. She sees that the weakest and the youngest (there is always a backward weakling bird) receives full attention, and is careful to poke any refractory offspring well under her, out of the cold. Here is none of your blind me-

chanical rearing, none of your behaviourist meaningless action, but a life instigated and inspired by love, and by a wild devotion with which any full-blooded human can sympathize.

This is just the time of year when the Sparrow-hawk receives its evil reputation. At other times it is a killer of small birds pure and simple. Now, when there are six hungry young hawks eager for food, the pair are driven to desperate measures. Young birds just emerging from their nests are snatched up, young pheasants (easy meat) picked up from the ground, even the chickens on a neighbouring poultry farm are taken. Their young must be fed, and the parent birds, scouring a wide area around the nest, kill wherever they are able. Small birds, large birds, mice, frogs, young rabbits—anything eatable is seized on, and for a few short weeks in June and July the slaughter is considerable. During this period of stress both birds simply dash up to the nest, drop their prey and are off again.

Left by themselves the young eat, rest, quarrel and exercise their sprouting wings. When they are nearly ready to leave the nest for good the strongest fledgling will often climb out on to some outstanding branch and jump and flap his wings continually. Even after they have learned to fly they still remain in the close vicinity of the nest and for a long time (until the first few days of August have elapsed) are still fed for the most part by their parents. By this time they are scattered in various trees and sometimes will keep up a thin



MERLIN WITH A DOUBLE KILL—TWO SPARROWS
A CASE OF OPPORTUNISM IN NATURE PHOTOGRAPHY
J. J. Robson [Waskerley]

excited whistling to tell their parents that they are still there and very hungry. After this, the last period of all, it becomes very difficult to watch them. Very soon they are able to fly with all the speed and sudden darting turns of the old hawks, but even so they still keep together and will go flying after their mother in short flights through the wood, twisting after her, no doubt in quest of the food she carries. To an unbiassed watcher behaviour such as this seems very much like the exercise of a rough education.

One thing, however, they do not need to be taught—the fear of man. For most young birds the first appearance of a human being is met with complete indifference—they have to learn by experience or by copying the actions of the old birds, that man must at all costs be avoided. The young hawk a few weeks old seems to possess an instinctive hatred and aversion of the human species. Quite recently I was watching in a small larch plantation where some young Sparrow-hawks just out of the nest were learning the tricks of flying. Occasionally one would stray near to where I sat motionless beneath one of the trees, and then the anxious 'kik-ik-ik-ik-ik' note of the mother would sound through the wood warning them. The young birds, however, were flying among the trees in all directions, and once or twice I caught sight of a bird bearing down upon me. Every time it came into the clearing where I was the youngster would spot me at once, shoot off at an acute angle and go twisting and dashing among the

boles just as quickly as a grown bird would have done. Although these birds rarely flew more than a few yards at a time, they were so wary that even an excellent shot would have found it very difficult to kill one of them.

For a few days young and old remain in the neighbourhood of the nest, where they fairly advertise their presence by their plaintive whistling. Soon, however, the party seems to split up, probably to go wandering far afield in ones or twos. Each bird leaves the safety of the sheltered covert and goes out into the open world to seek its living (or as often as not its death). The little wood is left deserted.

While the hawks are in residence the other birds of the covert naturally give them a wide berth. There is usually no bird bold enough to nest in the immediate vicinity of the hawk's nest, although one may find many small birds nesting at no great distance. I once knew a pair of Longeared Owls which nested three trees away from a pair of Sparrow-hawks, and although there was no actual bloodshed there were several angry encounters and a state of constant tension was maintained. Although an unwary bird is apt to be pounced upon anywhere, the smaller birds close at hand are usually left fairly well alone, for the hawks do nearly all their killing outside their own territory. Chiffchaffs and Willow Warblers sing unharmed in the very tree where the fierce female is sitting, and a hundred yards away Wood Pigeons go clattering out of their nests when we approach. On the wood edge a

pair of Woodcocks have safely reared their brood. Such a bird would be tempting game to any hawk, but it owes its safety to its powers of hiding, and in the pale June evenings goes 'roding' up and down the twilit avenues of trees where the hawks are at roost. At the height of the season there are many others. Chaffinches call boldly, Starlings soliloquize above their nesting holes, and minute fidgety Goldcrests flit excitedly about the mossy cradle which they have slung from a hanging branch of spruce. In its feathery interior is reared a numerous family, and the feeding of a host of tiny little ones is such a whole-time job that the elfin pair have no time for idle worry or useless apprehension. Nevertheless the Jays and Magpies that roam the wood in search of eggs to suck, or fledglings to bludgeon, are just a little apprehensive and keep close to cover in case of accidents. The Magpie may be a rascal and the Jay is certainly a bully, but unless they are careful they may go the same way as Sparrow or Blackbird, and as they are both wise, not to say cunning birds, they take the greatest precautions. The Jay even becomes dumb while his own nest contains eggs or young—at least he is unusually silent when in his own particular neighbourhood. A Jay chattering in June and July may safely be taken as being a safe distance from his nest.

Of all the small birds nesting in the plantation perhaps the most secure of all is the mouse-like Tree Creeper. He hugs the trees so closely and so rarely flies

more than a yard or two at a time that a swift-moving hawk has scarcely time to notice him and a very poor chance of snatching him up unawares. Always he goes about his business with greatest unconcern, taking scant notice of the watcher, and occasionally singing his piercing little song. But sometimes when he spots you he is round the bole in a flash and out of sight, or darts off with swift, arrowy flight to some other tree on whose bark he is soon lost to the eye.

Overhead, deep in the sky the last hawk rides the gentle August sky, a shape of pale umber, now almost motionless, now swinging in an arc, like a stick twirling in a slow whirlpool. In easy circles he sails, now shifting an idle wing or spreading his long tail to catch the breeze more surely, and ever his spirals effortlessly mount until his form fades into a speck drifting, aimlessly aiming at some unknown empyrean. Who can tell what are the concepts of its mind? Perhaps from those cloudy heights its wild eye is noting the features of the countryside so far below, so that after its winter wanderings it may return unerringly to the little covert. Perhaps after the period of stress it relaxes and gives its wings passively to the breeze, relishing that mute and quiet joy which is the reward of all at the completion of a long and arduous duty. Perhaps. . . .

So he goes, mounting into the pale sapphirine sky in whose spacious heights and skyey solitudes he may enjoy that safety and peace which a man-ridden world will nowhere afford him.

Chapter XII

A HILLSIDE IN WESTMORLAND



There must be many people who, when travelling by the L M S route to and from Scotland, have noticed an unusually fine and rugged stretch of country about thirty miles south of Carlisle. Climbing the long and heavy gradient of the Shap Summit the mighty engines roar down through a deep gorge, with steep-sided, rocky hills on each hand, which rumble and reverberate like thunder as the locomotives pass through. In a few moments they are out once more in open country and gathering speed for the Border town.

To one who makes the journey more slowly and arduously on foot, by way of the road from Tebay to Kendal, this valley is even more impressive. On the east side rise green and broad-backed hills with bald, round tops, but on the west the high skyline is broken by jagged crags which present a precipitous granite face, beneath which the ground is strewn with huge boulders and splinters of fallen rock. In actual height these crags are really nowhere more than two thousand feet, but nevertheless they have that about them which

constitutes a mountain. The Lake District has many grander peaks, chasms more abysmal, but scarcely anything wilder, despite the railway which creeps along the bottom of the valley. On all sides there are vast stretches of hilly country. On the west side, on surmounting the grey crags one is surprised to see new depths unfold themselves and a new vista of hills and mountains stretching for miles and miles. Below, about five miles away but looking much nearer, are the shining roofs of Kendal, and far away a distant glimpse of silver that is Windermere, with the grey line of the misty Irish Sea broken here and there by mountains—Coniston Old Man, Wetherlam, and perhaps to the north, its pike dubious in a scarf of cloud, the summit of the mighty Scafell itself. Turning round again the railway appears a colossal distance below, and miniature trains crawl along directly beneath us. Here on the heights it becomes difficult to realize with conviction that this crawling toy is the 'Royal Scot' doing well over sixty miles per hour, and that before we are home this evening it will have disburdened its human freight in far-away Euston. Euston! . . . Strange what a difference two thousand feet can make in one's point of view!

Once you have left the road the silence and loneliness of the hills makes itself felt immediately, and you are glad of the plaintive squeakings of Meadow Pipits that rise here and there to flit further off. There is now no bubbling of Curlews or pleasing modulation of Golden Plovers flying over their nesting grounds, no Wheat-

ear's song to add a cheerful, sprightly element among the forbidding crags. If it were not for the sparkling air the heat might be oppressive. The ascent soon grows steep, and even the sheep-track up the ghyll side necessitates a little scrambling in places. In spring the ghylls are the homes of Ring Ouzels, and even in mid August a number of these birds still keep to their territories, but by the end of the month most of them have collected on the lower slopes, where, in roving bands with their cousins the Mistle Thrushes, they attack the berries of the rowan bushes. They fly up high chattering like Fieldfares, when disturbed, and sometimes there are as many as fifty in such flocks.

The ghyll is deep, and in it one is sheltered from the cold winds which even at this time of year sweep the hillside so strongly: in spite of its position the ghyll is a cosy place. We need not wonder then when we hear the sharp challenge of the Wren from among the rocks. The Wren is one of the typical birds of the hills. A veritable troglodyte, it goes creeping in between cracks in the rocks, in and out of the juniper bushes that grow out among them, and emerges only to scold us as we pass. Perhaps this little inch of flesh with its perky, rusty tail will fare better in some sheltered cranny on the exposed hillside, than many larger and hardier species when the pitiless snows cover the hills. No doubt it will continue to find a living, creeping among the tangles of snow on the junipers in January, and picking at fragments which a human eye cannot per-

ceive, when the Meadow Pipits and Ring Ouzels and the others have gone elsewhere and left the hillside birdless.

With the skyline still far above us and white clouds skimming the tops, we come upon a stretch of more level ground, where the tusky brown grass becomes suddenly damp, and the peaty ground decidedly boggy. In places one is ankle deep in water, and miniature pools with rush-like grasses at their edges are dotted here and there. This is definitely 'Blackcock country', and it is not long before one of the birds flies up. It takes wing while we are still a good way beneath it, and flies out above the valley so that in a few wing-beats it is well out of reach of any gunshot. In their manner of taking wing when really disturbed there is almost as much difference between a Black Grouse and a Red Grouse as there is between a Mallard and a Blackbird. The Red Grouse makes off on whirring wings, protesting vocally but never rising much above twenty feet high, and flying in a straight line comes down after flying about two hundred yards. The Blackcock goes up silently, and duck-like continues to go up until it is really high. Then it usually flies round over the valley on a semicircular route, to descend on safer ground at a considerable distance. I am aware that there is a dangerous generalization in this, but it attempts to convey what is a very real difference between the two birds.

On some raised-up position the Blackcock, having alighted, stands sentinel, watching, very conspicuous with its long neck bolt upright: then, assured that the

danger is over it goes about its business of feeding, grazing head down among the brown grass, very much in the manner of a Turkey feeding. As it walks its body moves from side to side, and the blue gloss of its plumage glints in the sunlight. On the wing it is a larger, swifter and stronger bird than the commoner Red Grouse and, apart from its distinctive habits and haunts, there is a most conspicuous white line right through the black wing, which tends somewhat to increase the duck-like appearance of the bird. The beautiful and curious tail, however (seen so often in the caps of Highlanders), is nothing like so conspicuous as might be expected, and in August is not to be seen frequently as most of the birds are just emerging from a heavy moult. The Greyhen (she is quite a brown bird really) is hardly so distinctive as the Blackcock, and on moors where both species of grouse are numerous it needs a good eye to be quite certain of discriminating at a distance between Red Grouse and Greyhens. The latter is slightly heavier than the Red Grouse, and is a larger, stouter bird: in a good light the thin, white wing stripe (much narrower than the Blackcock's) and the forked tail, can usually be seen.

In summer the Greyhens brood their eggs and rear their young unassisted, for the Blackcocks go off to lead a solitary existence and take no share in rearing the chicks. In August the recluses are still by themselves, but parties of Greyhens and young birds of the year are to be seen together, and these birds do not

usually have the fine, towering flight of the adult Blackcock. Even so the flocks are half scattered, and the birds go up in ones and twos—a young Blackcock in patchy brown and black here, a pair of mottled Greyhens further on.

No bird has a more distinctive habitat than the Black Grouse. The ground must be high and wet, covered with coarse moorland grass rather than heather, and preferably situated above some valley where there are birch dells or hazel coppices. Both Blackcock and Greyhen are not averse to roosting in trees, and in late autumn and winter they descend to the lower slopes and spend much of their time in the woods, where they feed on the unopened birch buds and conifer shoots. It is impossible to write about the Blackcock, finest of all our game birds, without growing enthusiastic and perhaps even sentimental about it. Certainly the bird derives a good deal of its fascination from the grandeur of the country, and our enthusiasm may be largely accounted for by the exhilaration of the mountain air and the spring of the peaty turf: but nevertheless the bird justifies itself as the pride of the northern naturalist. Readers of *Guy Mannering* will remember the genuine concern of Dandie Dinmont when he learned that Captain Brown did not know the Black Grouse—how he regarded it as a woeful example of ignorance caused by living in the south.

' "Did ye ever shoot a blackcock, man?" he asks (with typical northern bluntness).

' "Really I had never even the pleasure to see one, except in the museum at Keswick."

' "There now! I could guess that by your Southland tongue. It's very odd of these English folk who come here, how few of them has seen a blackcock." '

Certainly it is not a bird to be missed.

Leaving the damp slopes behind, the ascent again becomes steep. The Pipits still squeak and flit further off: a Ring Ouzel at a safe distance stands boldly on a boulder, throws off a harsh, angry 'tak tak', and then flies off. For a moment a Peregrine Falcon comes out over the edge of the skyline and floats out, a thousand feet above us, beautiful even in silhouette. Then it closes its wings for a moment, and quickly goes out of sight. Higher up still in the blue, above the centre of the valley, are two black specks. The glass shows broad black wings that flap occasionally as the birds circle languidly round each other. They are Ravens playing. Round and round they circle, now close together, now far apart; then one bird utters three solemn, deliberate notes, 'hrog hrog hrog', and the pair cease their spiralling, and begin to fall slowly earthwards, turning and twirling as they drop, like pieces of black paper dropped from an aeroplane. Arrived within about two hundred feet of the hillside one bird suddenly becomes deliberate, twisting downwards in corkscrew fashion, at great speed, whilst the other alights more sedately on the top of a stunted ash tree that grows out from the stones. Perched there, with its head bent on one side it watches

the actions of its companion with the liveliest and most intelligent interest. Once it raises its wings as if to fly down and share in the proceedings, but thinks better of it and continues to watch. Evidently it is a morsel sufficient for one only, and Ravens are very particular in their etiquette in matters like this (of course it is very different if there is a whole carcase to be devoured). After preening awhile the bird on the tree evidently becomes impatient, for it raises its head and gives vent to a throaty 'och-ah', which doubtless constitutes a brief but potent comment on the situation. As it calls the stringy feathers of the throat stand out like a beard. The two birds fly heavily off, side by side, along the hillside, in search of something more interesting. Even now one of them must be playing, and as it goes half shuts its wings and rolls over on its side. 'Kronk!' it says each time as it recovers.

Arrived at the summit we still find further heights to be mastered, and a scene of rare loneliness and desolation—rolling, stone-strewn ground stretching away east to the stony precipices of Simon's Seat, and across further dales to Wild Boar Fell, Mallerstang and the Pennines. On these windy summits one could walk for weeks, and meet never a soul. One has only to have a glimpse of it to realize its utter austerity and eternal silentness. Even the hill sheep and the Meadow Pipits have disappeared, and with the valley left behind us we enter a wind-shaken wilderness which might well be part of Central Siberia or dreary Tibet. Not venturing

further across these birdless heights we return to the edge, where the hill drops down to the valley. From this eminence the whole valley can be covered in a glance.

Here and there below the air is full of small black bodies that go flying southward against the stiff wind which blows through the hills. Sometimes a pair pass quite close, swinging from side to side and twittering as they go—Swallows, already on the southward track, and using the gorge as a pass through the hill country. A few fly high, even over the heights, but there are hundreds concentrated in the valley. Every few minutes a solitary Lesser Black-backed Gull goes by on lazy wings that seem to find no trial in the stiffness of the wind. Every now and then a Common Gull provides a little variety in the slow procession. They all pass and continue to fly southwards with steady, purposive flight, keeping the same height all the time. Where they all come from we can only guess—most probably from Northern Scotland, but the nature of the movement is unmistakable.

A ragged flock of Rooks and Jackdaws, black specks at this distance, comes trailing down the valley, pausing to circle over a field of poultry, and then descending on it, no doubt to filch hen-corn from the rightful owners. They distribute themselves throughout the field in twos and threes, each bird searching on its own account. Although they are much too far off to show any distinctions of size, the eye instinctively knows

the Rooks by their sedate, middle-aged gait, the Jackdaws by their perky, nodding motions. At this height the rasping 'fraák fraák' of the Heron comes as a mere ghost of a cry, but the two grey-black winged birds look conspicuous enough against the green fields below, as they circle round above the spot where they intend to fish. Their great, van-like wings are arched and motionless, and in a single semi-spiral they glide one after the other down to the stony river bed, where for some time they stand motionless with their meagre necks upright. Satisfied that the spot they have chosen is indeed safe, they fold their necks and entering the water proceed to their quiet business of fishing, one bird a few yards away from the other.

Round a corner, where the ghyll furrows the bare hillside, a tiny dark figure dashes. At first it looks scarcely bigger than a Meadow Pipit. About three feet from the ground it comes swiftly up the hill with long, pointed wings that beat smartly and quickly as though their owner is very determined about the business it is engaged on. It is a Merlin hunting. There are no frills about the little falcon's flight, but there is something beautifully clear cut and decisive in it. Suddenly the bird perches on a small rock, and is lost to the eye. The glass reveals it perched bolt upright, turning its head from side to side, and darting fierce, searching glances on all sides. Woe to any Meadow Pipit that is foolish enough to squeak or dance up into the air now! The watcher on the stone has the sharpest of eyes, and misses

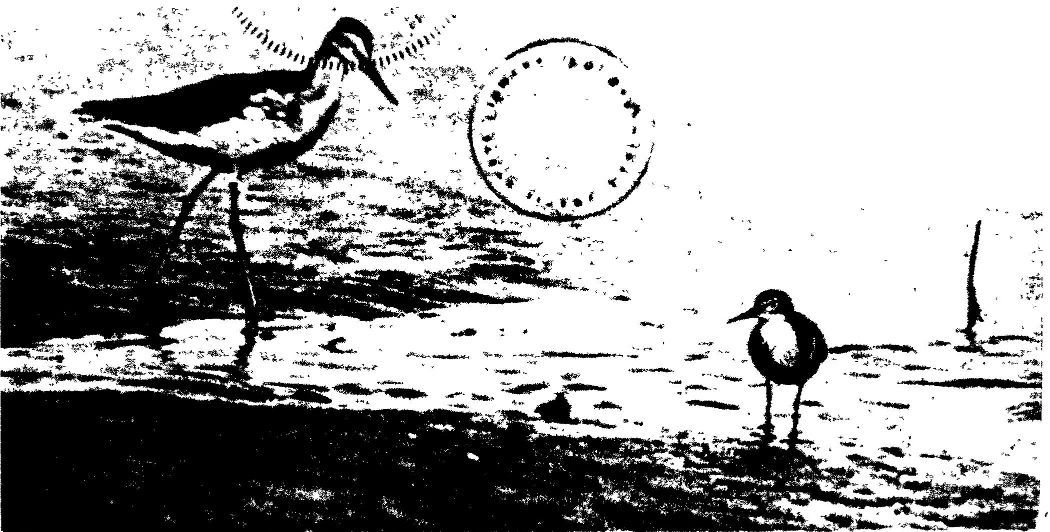
nothing. Perched there he waits until some unsuspecting small bird comes by, and then flies it down, kills it and takes it to some other stone to devour; after which, if satisfied, he dozes on the stone. The Merlin spends most of its life either in the air or on a stone. His wings and tail are palest slate, black at the ends, and in flight he looks pale blue-grey—not at all unlike a Stock-dove, though the comparison has obvious limitations.

Evidently he considers there is nothing doing hereabouts, for he beats off just as suddenly as he perched, ascending the side of the hill close to the ground in slanting fashion . . . and then the inevitable happens. A careless Meadow Pipit flies up right in front of the hawk's aerial path. Like a flash the long, pointed wings go up and fairly cleave the air with powerful strokes as the hawk goes after it. The terrified pipit darts from side to side, doubling down almost to the ground, then darting in a desperate swerve up into the air just as its dashing pursuer is about to strike it down. Rising and falling, twisting and shooting, making a half turn here and a rapid shoot forward there, they go, ruthless pursuer following every movement of the pursued, and so rapidly that it is a quick eye that can follow all their movements. Certainly the frantic pipit puts up a better fight for its life than we should have given it credit for, and it must be more than two hundred yards before it is finally outmanœuvred and struck down. This done, the Merlin spends some little time standing over the corpse, perhaps plucking it, and then flies off over the

hill with it tucked firmly in its talons, to devour it in some safe and favoured spot.

Everyone loves a small dog that is really 'game', and in the same way it is impossible not to hold some affection for the tiny Merlin. This little handful of fire and fierceness with the dazzling flight is a bare ten inches in length, and yet he does his job of killing in a neat and workmanlike fashion which is thrilling to watch. His hunting does not, of course, compare with the whistling stoop of the Peregrine which blots its victim out of existence in an instant, but it is finer than the meticulous flight of a Kestrel picking up beetles, or the sudden rush of the Sparrow-hawk which is over before we know that anything is happening. The Merlin at least gives its victims a run for their money.

The Buzzard at work provides as violent a contrast in predacious method as one can imagine. It is just as heavy and indolent as the Merlin is light and vigorous. Strictly speaking the Buzzard is a foreigner to this valley, and one will look for it in vain here during the breeding season. In Northern England it has become more and more confined to Lakeland, and many precipitous crags among the Pennines, where eyries were regularly occupied years ago, seem to have been gradually relinquished in spite of the fact that they still remain as solitary and inaccessible as ever. Actually the Buzzard is not such a lover of rugged, desolate country as many people imagine. It prefers well-wooded hillsides with a hinterland of moors and grassland where



RESTING ON THE GREAT AUTUMNAL MIGRATION: GREENSHANK AND COMMON SANDPIPER

F. P. J. Kooymans [Den Haag]

it can hunt without being molested. It is not common in the wilder and higher parts of Lakeland, but it is abundant around the rocky, wooded sides of Ullswater, which it finds exactly suited to its requirements.

During the breeding season the Buzzard, like other birds, remains in its own particular neighbourhood, but in August old and young begin to wander and a kind of general exodus is set up. Drifting on their great, indolent, motionless wings the big hawks appear in valleys where they are never known to breed. Some take up winter quarters among the Pennines, and a few young birds undoubtedly find their way down to open country and, as they are conspicuous birds anywhere, usually come to a miserable end.

In August and September these wandering Buzzards that take up temporary residences on new hillsides are pleasant birds to watch. At all times of the year they are leisurely birds, and just at this time when all Nature is relaxing they seem to spend all their days in doing nothing in particular. One notes them while they are still a great distance off, a motionless speck suspended high in the air over some crag, a speck which drifts slowly out of sight, to reappear again a few moments later. In huge sweeps, slow but majestic, moving its wings only to regain altitude, it gradually drifts along the hillside. It is always an impressive bird in flight—even its clumsiness has something of nobility about it, but it does not show up to advantage when it is quartering the ground in search of prey. As it passes

(slightly below us) its wings look broad and heavy, and the bird has a large-headed, short-tailed appearance which makes it look top-heavy. As it faces the wind with its wings slightly raised overhead and every one of the loose plumes responding to the strong air currents, the bird constantly lowers its head, depressing its open tail until it is very nearly doubled up, and as it does so half closes its wings and makes a kind of bouncing stoop. Its lanky, yellow legs are lowered in readiness to grasp the prey, but this is done several times without the bird actually touching the ground, until at last it is only a few feet up. Finally it does make an attempt, closes its wings in a heavy stoop and flops (it is the only suitable word) on to the grass where, with its wings half outspread, it lies all in a heap, like a Barn Owl that has just plunged on a mouse. Evidently the meal is not very substantial, possibly a mere insect, for the bird is in the air again in a moment, looking larger than ever.

The Buzzard is the laziest of all our birds, and a past-master in the art of taking things easy. It is its very laziness which makes its flying such a delight. Whenever possible (and this is nearly always) the Buzzard glides when progressing, and it has learned to make use of every breath of air with its feathers, rather than to battle against the wind and expend its energy. Watching it from above, through a powerful glass, one cannot help noting how each feather answers separately to the stimulus of the breeze, how the loose pinions curve at

the tips, and how each wing moves apart from the other to produce the direction required and make the most of the air. And all the time our delight is increased by the awareness that the bird is itself revelling in its flight, indulging in this artistry of suspension for no other purpose than that of pleasure. For hours it soars above the valley, circling in slow, masterful spirals, or hangs motionless, a great bird cradled in air.

Most hawks become merely uninteresting when they have had their fill. The satiate Kestrel sits woodenly on a tree, the Merlin on a stone, the Sparrow-hawk sneaks off into his wood and is seen no more. Being rather a stolid character the Buzzard is not averse to a doze, but he seems to enjoy a rest on the wing more than a snooze on the crags, and often indulges in aerial amusements whether alone or in company. To watch a pair of these birds at play is one of the grandest things in life. They prefer that part of the hill which is wooded at its base, woods which the Pied Flycatcher, Redstart and Wood Warbler enlivened in spring, but which are now silent and spiritless. Over these the birds, at no great height, float round and round for hours. Their tawny backs look almost golden as they turn in the sunlight, and contrast pleasantly with the brown and silvery underparts of the wings. One bird persists in pretending to stoop at the other, which avoids it neatly with a turn of the wing, and continues to trace circles across the other's spirals. Finding its companion offers no competitive retaliation the aggressor plays on its

own, and rolls literally head over heels (?) in a continuous rolling somersault to earth—a most amazing feat. Then it drops down its yellow legs, and with its wings arched comes sailing among the tree-tops, alights on a larch spray which is much too slight to support it, over-balances, but maintains its clutching hold, and hangs for a moment head down with its wings sprawling. This undignified proceeding is evidently some sort of self-invented game, and the excitement and enjoyment it gets out of it are manifest. It repeats it time and time again. Then it rejoins its fellow, and is soon spiralling five hundred feet above the trees, still dropping its legs and pretending to stoop in mid air.

While the two are besporting in this fashion a pair of Peregrine Falcons come across the valley from the precipitous crags of the western side. With the wind partly behind them they come at a tremendous rate, although they scarcely move a feather, and begin to soar about two hundred feet above the Buzzards. For a few moments both sail on outstretched, relaxed wings —two dark crosses in the sky. Then one of them win-nows its wings for a moment, then half shuts them, and comes dropping down in a breathless, aerial dive straight for the playful Buzzard, who, with a movement of the tail and the turn of a wing avoids it, and continues to soar. Which are we to admire more—the nerve and accuracy of the stoop, or the consummate, laconic ease with which it is avoided? The Peregrine, darting from side to side, flies up to his former altitude. The Buzzard

mews like a peevish kitten . . . and again the falcon makes a half turn, and comes swooping downward, now showing his steely back and now his silvery breast as he rolls in his fall. Again the Buzzard avoids him. So the fun continues.

There is no question of ruffled tempers or of any trace of animosity between the two—it is a patent case of two birds at play, exercising and enjoying themselves in the element in which they are supreme. The falcon's fall has none of the terrific speed and death-dealing purpose of the real stoop, but it has all its accuracy and beauty . . . the rigid, beautiful shape simply dropping across the sky. It is not often that we see the Peregrine indulge in social frolics, and like many perfect things their play is soon over. The falcons fly off to the crags, and the Buzzards are soon lost to sight round a protruding bluff of the hill.

When they are gone the valley seems cheerless and empty and, Buzzards or no Buzzards, there is always a sense of disillusionment in coming down from the hills. Once more we tread inferior ground. Among the bracken of the lower slopes we put up a rust-coloured Woodcock that goes rolling off on owlish wings, turning its long bill to watch us with one round eye as it goes. Fifty yards and it pitches into cover again to run into safe hiding, and await our departure. The Wood Pigeons that come flying from the larch plantations put up a fair speed, certainly, but they look heavy and their flight is forced, crude, unsatisfactory. . . . The

steady flight of Rooks, beating off home along the valley to early roost, is profoundly uninteresting. Watching Buzzards and Peregrines may be ecstasy for an hour, but it makes us hypercritical, and unhappy about apparent imperfections in the flight of other birds. We are soon spoilt by this lazy perfection, this athletic, powerful mastery. We have now no eagles in England, but in these two birds we have most excellent substitutes and, for sheer spectacular performance and perfection in the air, commend me in any case to the Peregrine and the Buzzard. Their images remain in the mind clearly, an exciting aerial memory.

We are now once more in the valley, shut in and earthy. How is it possible to have aspirations down here? Lapwings trip along a few paces, and then eye us half nervously as we cross their field. 'Tzit-tzit' call the cheery, white-bellied Dippers as they chase each other and go dashing up the rocky stream. . . . A Grey Wagtail with sulphur vent searches the dripping rock-moss for insects. . . . A few yards more and the wistful autumn song of a Robin singing from the stone wall of a shepherd's cottage welcomes us back to the land of everyday men and birds.

Chapter XIII

SLIME AND STENCH



To descend from the bracing air of the mountains to the fetid revolting breath of a sewage farm may seem to be a decline in something more than altitude. It would certainly take a more persuasive and convincing writer than the present one to set forth the description of a sewage farm in such terms as to render it not distasteful to the reader. Yet it is possible to spend enjoyable, even exciting days in these insalubrious surroundings, and if you are really interested in bird life you will soon find that an unpleasantness which can become quite sickening will be outweighed by other considerations. For there are far more birds here than there are on any of our hills, rare ones too and species which we are not likely to see anywhere else. Without regular watching on some borough sewage farm (it matters not where for they are all very similar), a bird-watcher's year is incomplete, and without being over-bold it may truthfully be said that it is one of the few bird haunts which everyone interested in birds can and ought to visit. If you are anxious to test the validity of interest in a per-

son who professes to study birds ask him whether he watches on the local sewage farm. If his answer is in the affirmative you may be sure that his enthusiasm is a genuine one and that he probably has the makings of a good thoroughgoing field ornithologist. If negative you may at least suspect him of being a mere bird-lover.

Every year millions of migrant birds cross over our country in all directions to and from their breeding grounds. Many of them spend the summer in more northerly latitudes than ours, winter in the south and merely pass through our country, staying perhaps a few hours or a few days in favourable places, and then journeying on as soon as they have recovered from their fatigue. We call such birds as these passage-migrants, and the months in which they are most numerous are April and May (when they return northwards to the breeding grounds), and August and September when they travel southwards in search of gentler climates in which to spend the long winter. Of these two movements the autumn one is the more noticeable, chiefly because at this period the numbers are swelled by millions of young birds of the year. We must not forget that most of these birds are from the Siberian tundras and that they are travelling in a south-westerly direction: a Knot nesting on the Yenisei and wintering on the coast of Spain is actually travelling further west than south. Probably some inherent kind of instinctive complex helps to carry the bird in this

direction. Many of the birds consequently are forced to cross types of country in which they would never normally be found. It is plain, for example, that such families as the Ducks and Waders would be quite lost if they came down in the typical English countryside—for them our fertile land is now a barren desert which offers no hope of life. But this is where the sewage farm comes in. In a restricted space it offers these strange birds that have come so far both food and rest and surroundings such as they are accustomed to. Not natural, perhaps, but to them as life-sustaining as any tundra bog or tropic marsh.

Most of the migrants arrive during the night. Sometimes the waker in the small hours will hear the faint whistling of Curlews calling to keep in touch with each other as they fly high through the blackness. Sometimes the weak tinkle of a Sandpiper or the mellow mournful 'tchoo tchoo tchoo' of a party of Greenshanks overhead breaks the dead silence. Which shall we wonder at most—the great purpose and strength which the birds manifest in making these long journeys, or the unknown power by which they are able to direct themselves on their dark aerial paths? Thousands of them make the journey alone, flying on and on through the darkness, bravely and hopefully giving the call of the species every few minutes and listening for an answering cry.

Most of the visitors to the sewage farm are tundra-breeding species. They may come from as far away as

Northern Asia and furthest Siberia, but probably the majority have their homes in Novaya Zemlya, and the northern extremes of Russia, Finland, Norway and our own British Isles. Some of them skirt the western Scandinavian coast and then cross the four hundred to six hundred miles of sea to Britain. Others cross overland through Lapland and Finland and come southwards via the Baltic, and follow the eastern shores of the North Sea via France and Spain to Northern Africa. Dr. Drost's recent investigations seem to show that a large number of these birds also reach our coasts, and that they cross the sea in a westerly direction from Denmark and Holland. Countless millions of birds follow these two great routes every spring and autumn, yet even this immense south-westerly movement through Europe is but a small section of the whole migration. If you examine the case of a single species it will help you to gain perspective and achieve some idea of the immensity of this yearly phenomenon. Take the Knot. In summer this species, as we have seen above, is to be found breeding in Northern Siberia from the Taimyr Peninsula to the New Siberian Isles, and an allied form is to be found in Greenland and Arctic America. The actual details of the bird's breeding range are not known as many lands where it probably breeds have not yet been well enough explored by members of any civilized nation: in fact it was only as recently as the end of last century that the first Knot's egg was examined. In winter it is found as far south as

South America, India, Australia and New Zealand. This may not sound particularly impressive at first until it is remembered what tremendous numbers of these birds are to be seen on our own coasts in winter. Coward described seeing the Humber clays 'grey with countless numbers of these birds', and points out that 'from the Solway to Land's End, from the Tweed to the Foreland, and scattered along the southern counties are many beaches where Knots are resting in even greater numbers'. The numbers in England alone must be reckoned by the million if this is true, for a single flock of Knots may number ten thousand. Reflect then that along many thousands of miles of coast throughout the world, in China, India, Australia, New Zealand, on thousands of beaches and flats on the African coasts, in France, Spain, Holland, Britain and on each side of the Americas from Florida and Mexico to Patagonia and far-off Chile, there are countless numbers of flocks such as this. It would take a sentence of Ruskin to convey anything of the vastness of such a movement, and the mind of the astronomer to grasp the immensity of it all. So far we are not even in possession of the main facts of the problem: we know comparatively little and understand less. What is really desirable in studying migration is some sort of organized international collaboration. Only a broad view will produce results worth anything at all, and real achievements will only be made in the future when we are able to correlate observations made in different

parts of Europe at the same time. It is all very well studying 'British' birds, but when it is a case of studying migration nothing can be more absurd than to narrow down the subject to an insular basis. Yet this is what is done. There are dozens of enthusiastic bird-watchers along the coasts of Britain who would gladly offer their services in an internationally organized scheme. Along the shores of Germany, France and Holland there are many others, and doubtless others could be found in Scandinavia, Finland and Northern Russia. If a band of such watchers could be brought to work together simultaneously and pool the information which they gathered from their isolated observations, then progress would be made a good deal more quickly than it is at present. The watchers concerned would at least have the satisfaction of knowing that they were working for something definite, and a sense of goodwill and fellowship (very much needed among modern bird-watchers) would be gained from the element of team-work involved, while the portfolio in which each recorded his observations and opinions would render excellent service by providing a common ground for the impact of new minds, new facts and new opinions. Isolated attempts to procure such collaboration have been made, but have rarely lasted longer than a single autumn. Two or three years ago Dr. Drost, a well-known German ornithologist, advertised for watchers on all the coasts of the North Sea—all of whom were requested to watch for any signs of migration at par-

ticular hours on certain days, and to report what they observed. The idea was good, but it is to be feared that the response to his appeal was somewhat scanty and that the results themselves were too flimsy to be of much value. There is definitely a great opportunity here for one or more of the Grand Chams of ornithology to step in and organize an international bird-watching scheme on the lines I have indicated, and so to get some straightforward but highly valuable work done. As it is now we underlings have not even a scheme or a plan to which we may lend our support.

So that when each August or September we watch our Greenshanks and Ruffs in the poisonous reek of the sewage air we have at once the delight of knowing that we are watching a moving section of a great movement, and the mortification of realizing that our little morsel of observation is almost useless, for it cannot be taken and fitted into a great whole. Each man's work at present tends to be a mere piece in the great jumble of observed facts.

There is nevertheless a major satisfaction quite apart from that of acquiring new and useful knowledge, for it is the birds which we go to see—birds as individuals rather than as units in a blind unthinking movement.

First come the Green Sandpipers, whose sharp silvery whistle flying overhead may be heard as early as the middle of July. They are inland birds, and most of them do not remain near the coast for long but push up along the courses of rivers and streams, picking about in

shallow pools and flying further upstream each time they take wing. Sooner or later they strike a sewage farm, and usually the attraction of these insalubrious haunts is so strong that they remain on them for weeks at a time. I have observed the Green Sandpiper on a sewage farm in every month of the year, during January's most severe frosts and in high summer when most of them are away breeding in wooded swamps of the north. In the hardest weather there is always food to be found in the unfrozen sludge, always some corner where man's devices enable the birds to hold out.

Lingering is not so usual after the spring movement as it is in autumn, but occasionally a few will stop behind in these places where an easy life is assured and a good time may be had by all. It is usual to dismiss such birds as non-breeders, but the possibility of their breeding in the neighbourhood of some English sewage farm is far from being remote. During the summer of 1934 I watched a pair of Green Sandpipers which remained on a certain sewage farm in southern England instead of continuing their journey northwards. From their behaviour I judged them to be male and female. Circumstances prevented any adequate investigations on my part, but I watched them through May and well into June, then lost sight of them for two or three weeks until July 1st when I again saw the same pair together. Then on July 7th I saw five birds together, but was unable to determine whether the three newcomers were youngsters or not, because the party had

become exceedingly wary and a close examination was impossible. What happened during the last three weeks I cannot say, and as it would be useless to suggest breeding on the strength of evidence of this kind it can only be said that their behaviour was decidedly suspicious. After all July 7th is a very early date for the arrival on passage of such a bird, especially in the southern counties. The Green Sandpiper has never been accepted as having bred in Britain, but its near relation the Wood Sandpiper has been found nesting once. Having seen the nesting site of this old pair at Prestwick Carr, Ponteland, Northumberland, all I can say is that most sewage farms could provide sites equally attractive. The possibility of the Green Sandpipers' having nested hitherto unnoticed by any competent ornithologist is a very real one—even though most naturalists scoff at an apparently useless contemplation of such hypotheses. A Sandpiper which nests in a tree might seem to be an easy bird to spot, but everyone knows how certain species have a habit of completely disappearing from human view during the nesting period. What is certain is that the attraction of the sewage farm for this particular species will probably result before long in the addition of a new breeding species to our island list.

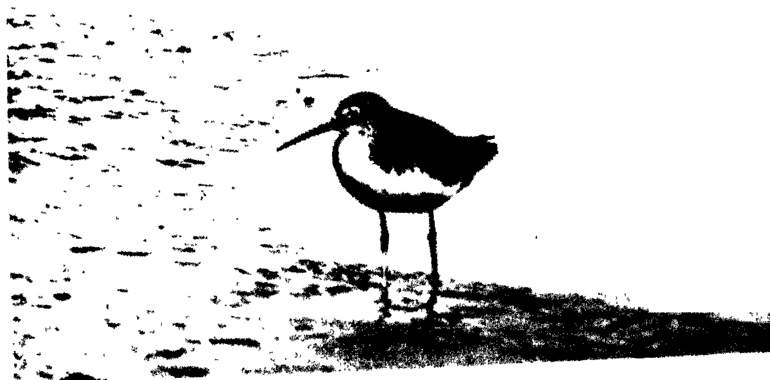
The Green Sandpiper is in its movements a dainty bird, nervous and precise in its actions. It flinches at the slightest movement which suggests alarm (and most movements do) and it is somewhat afraid of the clumsy

blundering Snipe, a much heavier bird with which it frequently has to feed on the soft sludge. It picks its food from the surface, selecting it carefully and only occasionally plunging its bill deeply in. It gives an impression as of a refined fastidious mind, and never does the possibility of danger leave its delicately adjusted mind.

The Snipe on the other hand makes no bones about it, but plunges its long bill, head and all, underneath the liquid slime and guzzles away with frankest enjoyment in complete oblivion. Perhaps it would be scarcely fair to the Snipe to say that he made a pig of himself, for he is a very admirable if somewhat stupid bird, but there is certainly a swinish relish in his manner of dining.

Sometimes in the cool of the evening the actual arrival of new birds may be witnessed. This for example is the movement which I saw on the evening of August 3rd, 1934 on the Darlington sewage farm.

'On the edge of one of the larger pools were five Ruffs (four Reeves and one Ruff to be precise), which were not there this afternoon. They seemed very tired, completely refusing to go up, and even when clods were thrown at them they merely raised their long necks and eyed the originator of the trouble with languid interest and little anxiety. Most of the time they spent preening, but two of them were fast asleep with their heads tucked under their wings. Later on, after twilight, they proved very loquacious, uttering some strangely sonorous and rather owl-like cries in



ENGLAND'S ONCE—BLACK-TAILED GODWIT
ENGLAND'S TO BE?—GREEN SANDPIPER
F. P. J. Kooymans [Den Haag]

the dusk, "kók kewéer wók", which were quite unfamiliar to me.

'A family of Curlews, four of them young birds with short bills scarcely decurved at all, came in from the north-east and descended among some oat-stubbles which have been lately flooded with fresh sludge. Here they proceeded to feed with the Lapwings and Black-headed Gulls. They too were quite tame and, although they were quite aware of my presence, continued to feed quite unperturbed even when the gulls flew up in a body.

'In the distance saw a large (probably female) Peregrine Falcon surrounded by an immense concourse of Swallows which kept swooping over and around it. It was travelling westwards having apparently come in from the direction of the Tees estuary, and progressed with a leisurely rolling flight which was almost reminiscent of a Harrier's. Possibly a mere chance visitor, although the presence of so many other birds may have brought it to pass this way. (It has been observed here more than once in early autumn.)

'A party of about thirty Common Sandpipers appeared suddenly from nowhere, flying round and round at first and finally coming down on a patch of bare black mud where they remained tinkling with great excitement, and perhaps contentment too. After five minutes of this they quietened down somewhat, and settled fixedly in motionless stolid attitudes. A few went right off to sleep. Amongst them were a few

Green Sandpipers, which also seemed to have been on the move. They were, in fact, tired out and dozed off quite off their guard, which is most unusual for so highly strung a bird.

'In the late evening large numbers of ducks dropped into the pools and began feeding: Mallard, Teal and Shovellers in fairly equal numbers, all in full eclipse plumage. Where these come from it is difficult to say, but it is fairly certain that they were all British breeding birds. There is a considerable migratory movement of ducks inside our islands during the latter part of July, August and September. Most of the foreign ducks do not enter the country until the end of the latter month.'

There is nothing very remarkable or particularly exciting about such an evening's observation, perhaps, but it is a typical cross-section of what the human eye can see when the autumn movement is actually in progress. Every day brings new visitors, and there is a real pleasure in recognizing newcomers, especially as some of them are strangely beautiful and uncommon species. The Spotted Redshank for example. It is a bird which has never been known to breed in Britain, and is supposed to be quite uncommon even as a passage migrant. Actually it is one of the most regular, as it is certainly one of the most distinguished of all the wading birds which reach our shores on the autumn movement. With moderate good luck a regular watcher will usually meet this bird some time in August or September. In its general features it is a typical Redshank, but pos-

sesses that vague 'something which the others haven't got', that indefinite quality which constitutes charm. It is a bird with a most finely cut figure, very tall and slim, appearing exceedingly tall when it stretches its neck and legs up at the appearance of danger, and it is equally as nervous and as sensitive as the plebian Common Redshank. If you are not well concealed it refuses to feed, but will continue to call softly and nervously, 'tchoo-ít tchoo tchoo-ít', a strangely unemphatic cry which rather reminds one of the simple little call-note of the Willow Wren among the bushes.

Spotted Redshanks are usually single—the Greenshanks often come in parties or in pairs. In a general way the Greenshank is the most intelligent of all the waders in its methods of steering clear of danger. The Snipe will often lose its head altogether, 'freeze' for a time and then stampede at an entirely wrong moment. The Redshank goes up with a lot of unnecessarily noisy hysteria—he believes in a wide margin of safety. The Dunlins on the other hand are absurdly tame, almost asking for trouble, and Godwits too frequently rely upon other birds to give them the tip when it is time to go. The Curlew, of course, takes less risk than any other species, and the Lapwing certainly comes near to gaining full marks for the way in which he avoids all danger by the most economical means: he rarely makes a mistake. But the Greenshank is wary without being unnecessarily so. He waits until the danger actually appears, then weighs up the situation

apparently intelligently, and does the right thing at the right time. Often the Greenshank remains when the other birds have all gone up. They do not court danger, but they (not being afraid of their own shadows as some of the Green Sandpipers are) require to be convinced of its reality before seeking flight. Unless in unusual circumstances they are never to be caught napping. When feeding they wade deeply into the ooze, picking about half convulsively on the surface—very long and lank of bill and neck and leg. They are more at home in the ooze than the Ruffs, several of which keep staggering and flapping their wings to retain their equilibrium. There is something measured and dignified in all their movements, and even when they are in flight with their long, dark olive shanks stuck out behind them, their wing-beats are determined and their sad threefold whistle comes unhurriedly calm as they fly off.

Ruffs, Greenshanks, Green Sandpipers, Redshanks, Dunlins, Ringed Plovers, Common Sandpipers, these are regular visitors to the sewage farm every August, as inevitable almost as the Lapwings and Snipe which crowd the mere sides and the fields of marsh grass and rank persicaria. But there are others, chance visitors, which cannot be relied on to appear unfailingly, and whose appearance is consequently the more welcome. Tall Black-tailed Godwits in a party wade far out in the slimy water and mutter uneasily among themselves when approached. Each time they go up the eye re-

ceives a shock. These slow brown birds with the quaint lank movements, suddenly grow brilliantly black and white and with their long straight bills staring in front of them and their languid legs drooping slenderly behind, go flying off with swift, powerful strokes of pied wings. Nearly all wading birds look very different in flight from what they do when they are at rest. When they take wing there is always a sensation of delicious surprise. Who after merely seeing the birds at rest could have anticipated the bold white back and rump of the Greenshank, the white wing flaps of the Redshank, the curious japanned and tortoiseshell patterns of the Turnstone's back, or the mysterious wing bars of the Stone Curlew? Perhaps there is a place for æsthetics in bird-watching, even if it does happen to be on a sewage farm.

The Curlew Sandpiper and Little Stint are two other species which cannot be relied upon to appear with any regularity: about once in two or three years per farm would be a fair average. Yet the Curlew Sandpiper is not so much an uncommon bird as an irregular one. When they do come there are usually numbers together, but either its migratory movements are affected by wind currents, or the species is subject to sudden fluctuations, for in some autumns it is scarcely noticed. In good years you may have fifty or more on a single stretch of mud. They are nimble little fellows like buff Dunlins, though slightly larger and with more decurved bills. At times they are exceedingly tame. I have

walked about in the midst of a band of thirty of them, and had them tripping about on all sides and chirruping together in subdued chorus. Suddenly they all fly up, wings twinkling and white rumps shining in the sunlight.

The Little Stint, which usually travels overland in ones and twos, looks scarcely half as big as the Curlew Sandpiper. For a wading bird it really is amazingly small, and gives the impression of seeking protection by hobnobbing with the larger birds. Usually it is to be found in the company of Dunlins, and in spite of obvious physical disadvantages it manages to keep fairly well alongside them when in flight. By themselves Little Stints are very confiding little birds, but when it comes to avoiding trouble they promptly follow the others. They have a low twittering flight call, and an excited little cry, 'ip . . . ip ip ip', about the same pitch as the Dunlin's 'sreee'. They do not fly at any height.

Then there are such rarities as the Grey Phalarope, a strange little grey and white wader that zig-zags about on the surface of the water, full of delicate nervous energy—the tamest of all our visitors. There is the spotted brown Wood Sandpiper which seems (although no one cares to say so) to be a really uncommon bird. There are many experienced and well-known watchers who have never come across this bird although it is hardly natural to expect them to blazon the fact in public. Evidently the bird finds little attraction in sewage farms for it is recorded from them

comparatively rarely. It is one of the dark horses of modern English ornithology, or should we, must we mix the metaphor still further and call it a blind spot?

In flight it is very much like a Green Sandpiper, except that it has distinctive white axillaries and conspicuously projecting legs. It is, however, a much tamer bird, returning frequently to the place from which it has been flushed, and after careful stalking will behave in an almost confiding manner. Compared with the nervous, flighty mentality of the Green Sandpiper the Wood Sandpiper seems very cool, almost casual in its actions.

As with all true sandpipers it is very delicate and fastidious in its movements. It rarely runs, but walks daintily on its long olive shanks, often jumping a narrow passage of water rather than wade, but all the time dipping its long straight bill into the water. Often its tail wags tremulously. Sometimes it swims buoyantly, and every few minutes picks slugs from the water's edge. These it worries for a moment then swallows with a shake of the bill, and afterwards dips its bill into the earth as if to wipe it. Meals of this kind are frequently followed by periods of dozing, but the bird's digestion is so rapid that the search is resumed almost immediately.

The Dotterel may be seen by chance—it is no good looking for it or expecting it. The Great Snipe on the contrary may be rooted out by hard work and diligent watching. It is even more indolent and inclined to doze

than the Common Snipe, and will spend whole days snoozing in a furrow or basking in the grass by the waterside. It is said to be more addicted to dry ground than the commoner bird, but whether this is true or not cannot be proved on a sewage farm. Usually all one sees is a plump red-brown bird going up, making off for the nearest cover and dropping therein. Once it is safely to earth again it has a trick of disappearing completely, and by a little discreet running will avoid the closest search. It is a hermit-like, heavy and indolent species, lacking the charm of the timid and equally retiring Jack Snipe, and the naïve simplicity and vivaciousness of the Common Snipe. When it goes up it needs a quick and sure eye to spot the white fringe on the tips of the fanned tail feathers.

By the end of September the movement begins to thin out, as the wave of migration passes to the south. In October paths grow miry, the pools are shrouded in dank white mist, the marsh growths grow limp and then sere, and most of the birds are gone. One or two, such as the Ruff and the Green Sandpiper, may stay into the winter, long after the others are gone, but the spirit of the thing is dead. Sometimes in October a solitary Grey Plover, strayed inland from the wild foreshore or the bleak estuarine flats, appears for awhile among the Lapwings feeding on the mud. That is the fag-end, the last twist of the knife.

One day a little brown bird goes up from beneath one's very feet, and flies off before one with wavering,

glancing flight, to drop earthwards again in a moment. A gentle, humble little bird, with straw-coloured lines on its dark back, that glances up from the marsh as if it almost said, 'Shoot if you wish.' On the ground it crouches with its bill pointed along the mud surface, hoping that the intruder will pass it by unnoticed, and allowing him to approach as close as he was before and then flying off again.

Readers of C. E. Montagu's stories will remember Jimmy who 'didn't take care of himself'—an admirably written sketch of a mild, completely lovable and self-effacing man. The Jack Snipe is such a bird. It is not exactly retiring, but it is so insignificant that its presence is scarcely ever noted save when it is accidentally disturbed. It is a bird of regular habits and if it is left in peace it will remain throughout the winter in the same swampy little patch of ground. Unintelligent it may be, but the finest and most lovable of creatures is scarcely ever the most intelligent. It is a bird which one cannot help regarding with more than mild affection: and if ever I use a gun, which seems highly improbable, I would sooner level it at some Nightingale or Kingfisher than at a Jack Snipe. It arrives with the first breath of winter, a gentle little reminder of hard times and suffering to come, to be borne patiently and undemonstratively. Is not the forerunner of winter entitled to as much respect as any harbinger of green spring or drowsy summer?

Chapter XIV

THE FASCINATION OF MIGRATION: TEESMOUTH



Throughout the early morning there has been a heavy white mist hung over the sea and the river mouth, and since ten o'clock, when it began to sift and thin under a powerful sun, there has been an almost continual movement of birds. They came flying up into the heart of the estuary, flying steadily and rhythmically at a moderate height above the waters—waders most of them, and all uttering their various call-notes as they flew. Sometimes they arrived in twos and threes, with now and then a single bird, and once a tremendous straggling line of birds, Curlews, Godwits, Knots and Grey Plovers by the hundred came flying across the open sea, rising and falling slowly like a drifting trail of smoke. They passed on, and dropping down to rest were soon lost to the eye on the vast mud and sand flats of the wide estuary.

During the night the second of the great autumnal 'rushes' of migrant birds from Scandinavia has been in progress, and the fag-end of the movement is still visibly in progress. Close at hand a little band of Oyster Catchers are snatching a little sleep after their long

journey. Each bird stands on the sand on one leg, and has its bright crimson bill tucked away along its back. All except one are fast asleep and do not so much as blink their red-rimmed eyes. The exception is evidently more hungry than tired, and is endeavouring to pick up a few odds and ends from the surface left bare by the receding tide. It is possible that this bird is acting as a sentinel, but it is equally probable that it is merely a stronger bird than the others and not so weary. Presently another party of Oyster Catchers comes flying in from the sea, the birds whistling to each other at a great height, thankful no doubt that their long journey is safely accomplished. The effect of their clear whistling upon the solitary waking bird on the ground is most marked. Instead of walking stolidly among its sleeping companions it suddenly grows violently excited, looking about it in all directions and then, seeing the others above in the sky, it runs along the ground, takes to the air, whistling and trilling in the greatest excitement. The flying birds, attracted by this move, change their course and begin to plane down in the direction of the sleepers. The sentinel bird, still trilling and whistling, flies to meet them and turns in the air to escort them to where its companions are resting. These latter are now fully awake and begin to run about the sand, and when the second party alights alongside the first the joy and excitement of all is most manifest. For a few minutes the new arrivals run about amongst the others, as if to receive congratulations and exchange

recognitions, and then all settle down to doze together.

A great crowd of Bar-tailed Godwits has assembled by the water line, and wading in the shallow water many are guzzling for all they are worth. Here and there among them is a bird resplendent in richest ruddiest bronze, but most of them are in brown and white. They are not very intelligent birds and, though they learn afterwards that it pays to be wary, they are usually stupid at first and rely upon more careful species like the Curlew or Whimbrel to take the lead. When the warier species go up they follow like sheep. Near them on the shining wet sand is a flock of little Sanderlings running about on twinkling black feet that move so quickly as to become a blur beneath the white bodies of the birds. They run about here and there, inspecting the sand for crustacea, and all moving slowly and vaguely in one direction. Most of them are already in their black and white winter plumage, with traces of buff and brown on chest and back remaining as final testimonies of summer plumage.

Compared with the Sanderlings the Dunlins seem almost stolid, immovable little fellows, and the Ringed Plovers that run a few short steps and then stop with their heads in the air like a Thrush after worms, seem phlegmatic and impassive. All the time the Sanderlings call to each other 'wík wikwík' in sprightly fashion as they search, and the tiny plovers utter a soft 'wheeb' when they are anxious. The curious sharp 'kitter kít kitter kít' trill of the Turnstones comes from a party of

newly arrived birds. As they fly they turn their beautiful tortoiseshell backs, showing the strange, writhing pattern of black and white, and then descend suddenly on a dark patch of mudflat on which they are immediately lost to view.

Far out on the widest stretch of all, where it is impossible to approach them without being obvious from the start, is a flock of Grey Plovers and Knots in breeding plumage. Occasionally one bird will change its position, withdrawing from the edge into the crowd, but for the most part they are motionless, resting. The telescope shows that many of them are fast asleep. Nearly all the Grey Plovers are in their brilliant breeding plumage and jet-black gorgets and faces stand out clearly, with white foreheads and speckled backs that fairly twinkle in the bright sunlight. Of the Knots, still plump and in good trim, a fair proportion are still in their rosy summer dress; as they turn in the sun the indescribable bronze flush of their breast feathers catches the light. Standing together in a close pack, with the black and white plovers as a contrast, they make a gorgeous picture.

The Knots are merely the first arrivals of a tremendous movement. Months after these particular birds have passed on further to the south these estuarine bays will still be the temporary home of countless thousands of others. We know comparatively little about the breeding haunts of the Knot except that they are somewhere in the solitary tundras of the Taimyr Peninsula,

the New Siberian Isles and other parts in Northern Siberia. Perhaps when its breeding grounds become more frequented (if they ever do) we shall pay for our increased knowledge of its breeding haunts and habits by observing on our own coasts a general decline in the numbers of this species. In any case, as these particular birds must have travelled four thousand miles or more during the past week or two, and certainly not less than five hundred miles during the night, we may well excuse their being sleepy and inactive. They will stay here for a few days, perhaps even weeks, before making any further move.

By no means all the waders alight in the estuary or on the foreshore. A party of Whimbrels whistling continually fly steadily overhead, making inland, where if they grow weary they may alight on some sewage farm for an hour or two. Sometimes during the night we hear the fluted treble call of Greenshanks calling to each other as if reconnoitring, or the silvery whistle of the Green Sandpiper. Birds such as these do not usually alight in the estuary, but push on overland at once for inland sewage farms and out-of-the-way corners where they may sleep in peace or find suitable food. Many of the Curlews that come into the river mouth pay no attention to the calls of the birds on the mudflats, but continue imperturbably on their way overland. Most of the Curlews from the northern moors begin their migration by descending eastwards to the sea coast, so that sometimes in early August it is possible to see birds

in the same great movement flying in exactly opposite directions—foreign Curlews going westwards and local birds making for the easterly seaboard.

Out on a wide stretch of sand that is isolated in mid estuary at low tide, the Seal Sands as they are called, are thousands and thousands of gulls. Great Black-backs, about four hundred all told, stand there for hours, preening themselves occasionally or croaking amongst themselves and making spasmodic sepulchral laughter. Great hordes of Herring Gulls, Common Gulls and Black-headed Gulls whiten the golden sands on which they rest. Many of the little Black-heads, active as ever, are paddling at the water's edge, doing the goose-step on a soft spot to rouse sandworms to the surface. It is an old trick which they all learn and practise.

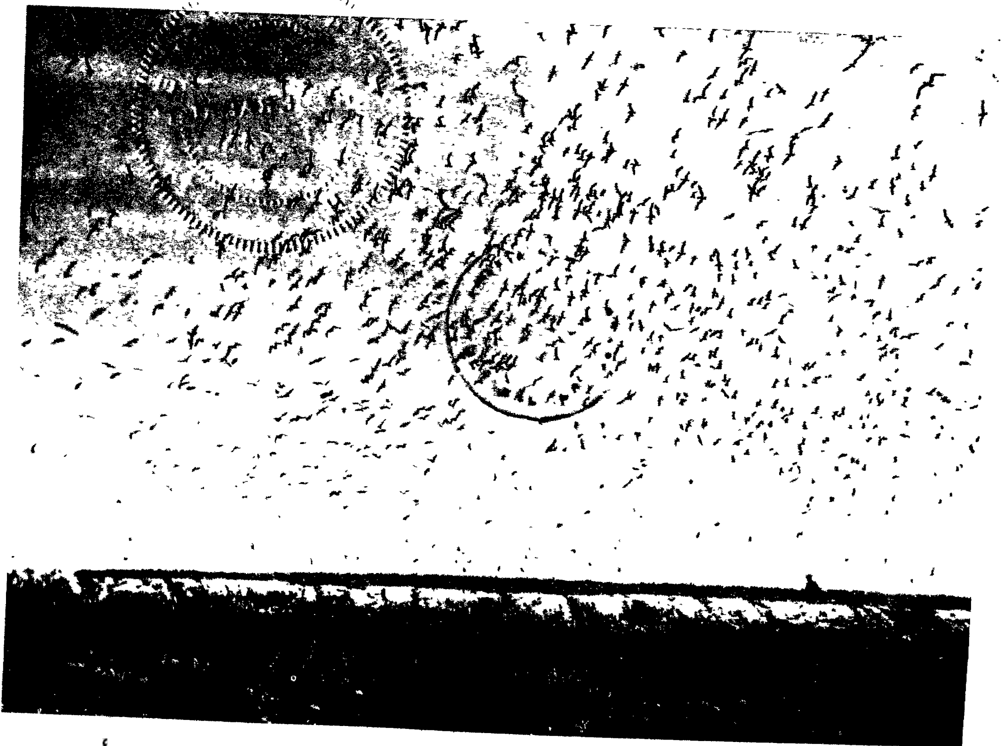
Further off, on a stretch of their own, the sand is literally covered with terns of various species. Common Terns chiefly, but with numerous parties of Arctic and Sandwich Terns among them. Some keep flying up in the air after each other, calling harshly and excitedly, but the majority merely stand on their short little legs with their long pointed bills thrust out motionless in front of them. In the sun the white faces and black caps of the Common and Arctic Terns show up brilliantly against their coral bills and crimson legs, while the larger, more powerful Sandwich Terns look even more distinguished in black, white and pearl grey. Their black caps terminate in loose spiky crests that blow about with almost artistic abandon, and their slender

black bills narrowing to a point of yellow horn are the avian counterparts of the human stiletto, delicate and yet effective in their own purpose. The animated Little Terns that go buoyantly past in mid air have been here all the summer and so are still full of life, fishing in the shallows and calling to each other all the time, as if hysterical with the very joy of life, 'skarra skarra ík ík ík ík ík ík'. From the excitement at each capture one might think that this was the very first time the bird had caught a fish. Certainly these little Terns with the white foreheads and lemon bills exhibit far more zest and gusto than the others, who have had much of their constitutional excitability toned down by the coastwise journey which they are making from their breeding stations in the north. The Common and Arctic Terns would rest here motionless until the tide moved them, were it not for the fact that they are constantly disturbed by the fishermen. The merest sight of a man approaching sends the whole multitude high into the air, a cloud of white wings shrieking violently as they circle above the intruder. Amongst this feathered confusion the penetrating 'kée! skéerek' of the Sandwich Terns, answering each other on the wing, is the predominant sound. They drift further off, and settle down once more on a safe stretch of sand where young and old can continue to rest and preen in temporary comfort. Like all highly strung creatures, however, they find it impossible to remain quietly at ease for long. Sometimes when they are together fishing they



COMMON TERNS FEEDING THEIR NEWLY HATCHED YOUNG

J. Kershaw



'A SCREAMING CLOUD OF WHITE WINGS': SANDWICH TERNS

By courtesy of 'The Northern Echo'

are set on by the great brown Skuas who are also on the move, and who take advantage of the terns' nervousness to bully them unmercifully. So enthusiastic are the frail terns at their fishing, so wrapt up and excited by the process of procuring food, that they never notice the approach of the dark marauder as he comes dashing over the water. He is among them in a moment, singles out a bird with a fish, and dashes at it with all the fierce determination of a stooping hawk. Immediately the whole crowd rises towering in a mass in the blue air, a moving cloud of white shimmering wings and execrating shrieks. Usually the victim displays some spirit, hanging on to its fish, and attempting to avoid the blows of the bully. If it is a Sandwich Tern it may even succeed in getting away with its fish, for its assailant may transfer its attentions to an easier bird, but usually a vicious lunge from the much larger Skua forces it to drop its catch. With a swish of pinions the assailant shoots down and neatly catches the glittering morsel as it falls. Once it has got it it flies over the waves leaving the terns to resume their fishing unmolested or to settle down once again upon the sand. No doubt they forget the incident in a moment.

Of the four skuas which visit the British coasts during the autumn migration, the Arctic (or Richardson's) Skua is by far the commonest. The Great Skua, which may also be expected during the August 'rushes' is much more of a marine bird, and as with the Gannets it is not often seen inshore when travelling. The Poma-

torhine and Long-tailed Skuas are somewhat unusual species during most autumns, and in any case largely belong to the later movement in late September and October which brings the divers, the sea-ducks and Snow Buntings. When they first come the Arctic Skuas usually spend two or three days in the estuary, careering over the still waters of the river bays and living the easy life of a pirate. Then the urge to move seizes them and they go. Some mornings in mid August if one watches out to sea one sees several of them passing southwards, single birds, some in sooty-brown and others with creamy faces and underparts. Sometimes a little line of Sooty Shearwaters will go past, rolling and swinging over the wave-tops, or a loose string of Gannets sailing, diving occasionally, or a flock of waders on glittering wings, rising and falling endlessly in their tireless race. Then there comes a succession of days when visible movement ceases and it seems as if migration is at an end.

The Godwits stalk along the water-line as soberly as if they were permanent residents, and wade out in a line into the deep water where they keep plunging their long bills into the sand. The Sanderlings and Dunlins continue to run about on the sand newly-wetted by the advancing tide, and they too seem perfectly at home. The total numbers of Dunlin and Ringed Plovers on the flats must be immense, for though the parties are never closely packed they are so widely spread that scarcely a corner of the bays is

without its birds. Redshanks call warningly and are flying up before the other species are aware that a human being has come in view. The Dunlins always allow a fairly close approach before making off, and some of them, probably birds of the year bred on some wild tundra where man is unknown, are so absurdly tame that one can *almost* pick them up.

Throughout the long sunny days there is a great quietness over the spacious flats where thousands of birds are resting after their arduous travels. Only the restless repeated calls of Whimbrels 'seven-whistling' in the sky recalls the fact that migration is still in progress.

From Aristotle onwards the phenomenon of bird migration has continually occupied the minds of the world's greatest scientists. The spectacle of tremendous numbers of avian travellers in the skies, the hawk which stretched her wing towards the south, and the myriads of Quails which gave sustenance to the children of Israel wandering in the wilderness, were annual sights for the people of the ancient world and, though some of these passages may perhaps be less phenomenally impressive nowadays, there are still many points of vantage where migration is to be viewed on a tremendous scale. The narrow Nile valley where the air is sometimes dark with wings, Rossiten in the South Baltic and Heligoland in the North Sea, are good examples of such outposts—isolated points on which

converge the aerial routes of the travelling birds, and where the most remarkable observations of migration can be and have been made. More work has been done on this one particular problem than on any other connected with birds, and yet in all honesty it must be admitted that we are still almost as far from the real truth as old Aristotle himself. Every possible influence from sunspots and changes of pressure to sex changes and the influence of light rays has been suggested, until the bewildered student of migration finds it almost impossible to be clear on any points, or to isolate factors which are important from those which are not. At least, however, we must admit that those people who desire an explanation of migration cannot complain of any lack of data. The bibliography of the subject has grown to be amazingly vast, and it would require years of work for an accurately trained and patient mind to sort all the information out. Even in the British Isles alone a terrific amount of observation has been recorded. Every spring a thousand and one local newspapers publish accounts of the arrival of the first Swallows, the first Cuckoo (inevitably) and other summer visitors for which local bird-lovers have been on the lookout, and though this may mean very little from a scientific point of view, it is at least an indication of the interest which the general public now take in the phenomenon. Several ornithologists have given up their lives to the observation of migrating birds, watching the arrival and departure of the migrants on our coasts,

noting dates over a series of years, watching weather conditions, the behaviour of the birds and a hundred other odd details which may help in the solution of the mystery. Much time and money has been spent during the last twenty years on the ringing scheme, whereby thousands of migrants in all parts are caught, ringed and released and the places of recovery noted when reported. As a result of this scheme we now know for certain where our migrating birds go to in the winter, and have at least a rough idea of the routes by which these destinations are reached. And yet in spite of all this we can be really sure about very little when discussing migration. One is always in danger of making some tremendous error. Gätke who spent practically a lifetime watching migration on his beloved and favoured Heligoland believed that birds performed their tremendous journeys in a single stage, perhaps even in a single night, and in defence of this theory he accredited the Bluethroat (a bird similar in build to the Robin) with being able to fly continuously for several hours at a speed of over two hundred miles per hour. He believed that they could do this by ascending to great heights where the absence of adverse wind currents would allow them to achieve phenomenally high speeds. We may smile at old Gätke's shortcomings to-day from our ready-made position of superior knowledge, but even the late T. A. Coward, most recently lamented of our greater ornithologists, still clung to the idea that birds travelled at great heights.

Nearly all the evidence disproved such a belief, yet Coward stuck to it. Why?—because his facts fitted up to a certain point, after which he was content to guess. And that is the greatest trouble about this problem of migration: always there comes the point where one has to guess. It is significant that the only two reasonably sound books on the general problem, Wetmore's in America and Dr. Landsborough Thompson's *Problems of Bird Migration* in Britain, neither argue, state nor put forward personal views, but content themselves with analysing and assessing the value of the evidence which is to hand.

The ordinary man in the street may feel tempted to exclaim 'Rot!' in the face of the scientists' superfine deliberations, and to solve the whole business by means of an easy common sense. 'It's fairly obvious to me', he is inclined to say, 'that if all our British Swallows remained in England during the winter they would all perish. The reason for their migrating, therefore, is to avoid the cold of the winter.' There is, however, an unconscious stupidity in such a view, which, as Dr. Thompson points out in his book, is an obvious *non sequitur*. Why then did the Swallows originally come to a land where they were in danger of perishing? The subject is one which demands more than mere common sense.

The ends served by migration are fairly obvious. It is a great advantage for certain species to enjoy the abundance of both a northern and a southern summer in the

course of a single year, and also (though this has not been insisted on) to remain constantly under equable climatic conditions. The original causes of migration, and the various stimuli (which may be quite different in different families), which set it in motion twice a year, are comparatively minor problems which we must leave in the safe hands of the thoroughgoing scientist for elucidation. After all we have very little to gain by inquiring into how migration grew up and why it continues—the mind of the migrating bird is a much more significant and interesting problem. If you believe birds to be merely highly specialized automata the solution can only have a mechanical, technical interest for you; but for those who see birds as autonomous, intelligent creatures which in some way are consciously surrendered to strange impulses, then the problem takes on a new significance, as fascinating and as deeply baffling as the very texture of life itself. To a certain extent it is possible to believe that the bird is unconscious of migration, and of the physical changes which belong to it, just as a human being may be said to be unconscious of growth. The custom is as instinctively innate in every bird as is its nest-building, its singing or any other of its instinctive actions. It is all part of a racial mneme which repeats itself perfectly in every bird with the regularity of clockwork. To a certain extent, then, we must admit that the individual bird is in fact a mere pawn in a universal movement of colossal magnitude.

Once the migration has begun, however, we must not forget that all problems and incidents occurring on the journey must be solved and undergone by the bird as an individual, autonomous being. We have been too prone hitherto to think of migration as always taking place in tremendous flocks (as of course it very frequently does). We have tended to overlook the migration of small parties and solitary individuals, and to forget the fact that to all intents and purposes most birds make the journey alone or almost alone. It is probable that migration is as much a triumph of perceptual intelligence as it is of pure instinct. Anyhow we are most likely to find the real secret of migration in the behaviour of the individual rather than in the multitudinous hordes which occasionally darken the sky.

Sometimes after wrestling with the complexities of the subject I begin to fancy that we puzzle ourselves unnecessarily by regarding migration as too much of a phenomenon. Would it not be simpler to look on it as being the perfectly normal thing for a bird to do? Dr. Landsborough Thompson stresses the phenomenal regularity of the migration of certain birds, and assumes that 'migration has a definite path and definite goal and is not in any way haphazard'. This may be true in the case of one or two species in which the instinct of migration has grown deeply specialized, and in which even such details as the times and directions have been instinctively mechanized. It has been proved, for example, that White Storks nesting in Denmark

and Northern Germany migrate south-eastwards in autumn in the direction of the Eastern Mediterranean, while Storks native to Western Germany follow a south-westerly route through France and Spain. But this can scarcely be taken as proving that the birds have any definite path or any definite goal. On the contrary observation would tend to show that the autumn movement is much more of an indefinite wandering than a purposive seeking out of a preconceived destination. A good deal of error has been caused by regarding the autumn migration as a definite clear-cut movement, and the results of actual experience would have it that there is something almost casual about it—at any rate in its later stages. In spring of course it is a different matter.

Viewed broadly it is surely the most natural thing in the world for a winged creature to wander from its breeding home. And that is what this autumn movement largely is—a wandering. Watching Gannets on their southward trek, one is impressed by the leisureliness of it all. The birds swing and sail, diving for fish or resting on the water just as they did in their breeding waters, but ever drifting southwards. Even Swallows on the move (and usually we think of these birds racing in their tremendous hordes, urged by some blind tremendous impulse) give a similar impression—they circle and sweep in spirals, drifting and making an almost careless progress through the sky. It is only when some considerable stretch of water has to be

crossed that we witness a determined purposiveness in their flight, and perhaps too much observation of migration 'rushes' has resulted in our gaining a strained view of the movement. It is very much to be doubted whether these rushes can be taken as being typical of autumnal migration as a whole. Far from taking place in the course of a single day, as Gätke imagined, it is probable that the journey is in all cases spread over a course of several weeks, with periods of rest and idleness interspersed with spasms of intense activity.

There is little doubt whatever that the birds await suitable times before embarking upon these sudden 'rushes'. Weather and barometric conditions play an important part in deciding the date and hour of the movement. The bird's body is a highly sensitive instrument well able to tell the best time for making a hazardous journey. Even human beings can frequently foretell weather changes by the behaviour of their bodies—the muzziness in the head which means thunder, the pain in a rheumatical joint which speaks unmistakably of rain to come—so that one need not be fearful of developing any traces of behaviourist philosophy in allowing such influences in a bird. Of course the bird's frame is a much more sensitive instrument than our human one, and is accordingly more subject to changes in weather conditions. The details of such influences have been studied in a variety of species, especially by German scientists on the Continent. The general tendency may be best summarized by saying

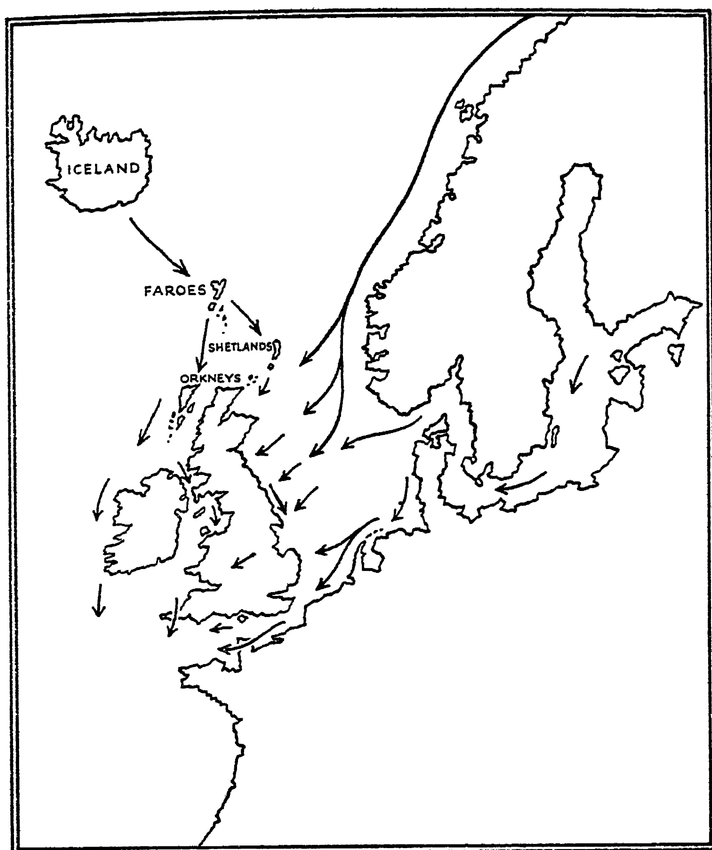


Figure 1. Principal directions of autumal migration to the British Isles.

that all birds when migrating tend to move from regions of high to regions of low pressure, and from lower to higher temperature. Wind conditions too play a highly important part—a part which Professor Thompson rather underestimated in his book. A strong continuing head-wind may be quite disastrous, and on the other hand a directly following one is not favoured as being uncomfortable for the birds. What is required is a side wind, or better still a side wind which is slightly following.

Now winds are usually constantly varying, and in many parts they are not by any means the same each year at the times of migration. This seems to be the reason why half-hearted migrants like the Waxwing and Crossbill are so irregular in Great Britain. In some years the winds at migration time help them across the seas to our islands; in others they are adverse and the birds remain on the Continent. The Curlew Sandpiper is another autumn passage migrant which is irregular in this way. In some autumns it is quite numerous, appearing in numbers on nearly every sewage farm in the country, while in others it is scarcely recorded at all. Evidently the general migration path of such a species is chiefly on the eastern coasts of the North Sea, and England only receives a substantial number of them in years when weather conditions are favourable for overseas travel at the time of migration.

A curious fact to be observed on the north-east coast of England, and in many other parts, is that migration

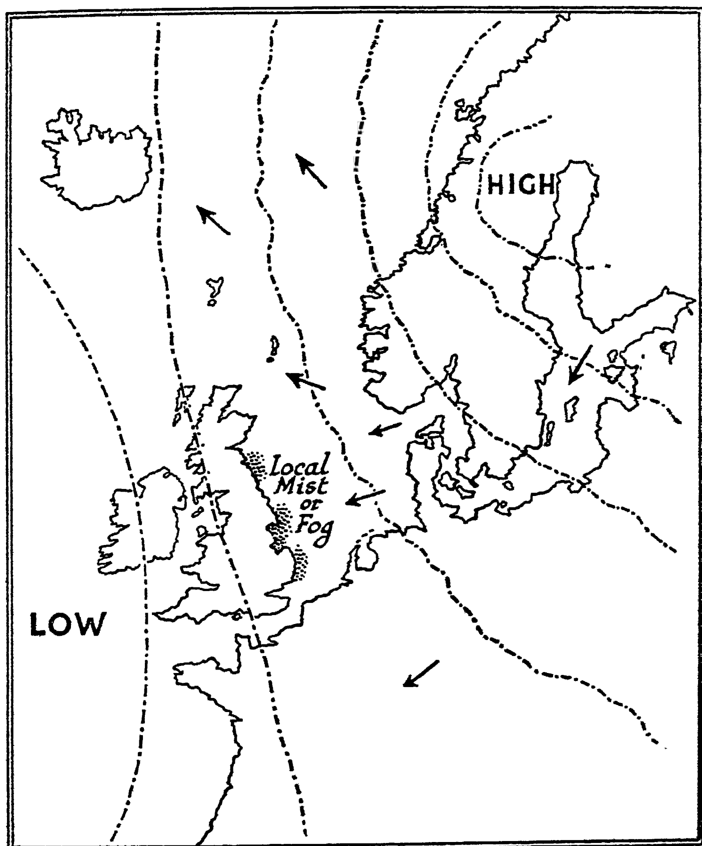


Figure 2. Anticyclonic conditions favourable to birds migrating S.W. to British Isles. (August-September).

is most frequently observed to be noticeable when there is mist or fog. Fog, of course, is a serious handicap to the travelling birds, and in spite of their marvellous powers of finding their way and homing (positively miraculous in certain species), experience shows that they are soon baffled by fog. There is no particular significance in the presence of the fog itself, but the fact of its presence at the time of arrival on our shores is probably explained by the existence of anticyclonic conditions generally favourable to migration some hours previously in the district where the birds' journey began.

When a high-pressure area is centred over Scandinavia the birds tend to move, and as the winds are usually fairly favourable they make in the direction of the British coasts. The fog is a mere detail in the scheme —but it provides the clue which leads us to a possibly correct solution. It seems that the birds await these anticyclonic conditions. Sometimes, perhaps, the favourable conditions may cease suddenly owing to some sudden change in the atmospheric system. A westerly gale may spring up, in which case there will probably be a disaster, and the majority of the migrants will be driven along the continental coasts. But usually favourable conditions of the type described are fairly prevalent throughout August, September and much of October. Whether the birds know what lies before them when they set off, whether they choose the shortest crossings possible, are questions which we should

much like to answer, but upon which we can only confess completest ignorance. The probability is, however, that the bird knows much more about it than any human being ever will, and that it has ways of knowing and means of sensing which we cannot understand and perhaps do not even suspect.

It depends entirely upon your general philosophy as to how you regard the state of mind of a migrating bird. If you are of the behaviourist school (slightly effete and *démodé* perhaps at the moment) the facts will warrant your regarding it as a mere automaton moving under the impulse of a blind (but mysteriously complex!) instinctive tropism. Or, if you have watched your birds with sympathetic understanding, you may regard their annual movements as triumphs of perceptual intelligence quite as much as of any instinct, as a natural, inevitable journey in which the traveller is fully cognizant of the problems which occur. Its journeys may have strange insoluble aspects, but that is only because we do not understand the intricacies and strange depths of bird mind. In other words we shall only solve the riddle of migration when we come to understand the bird, and conversely the fact that migration is still a riddle is an indication that we have as yet made scant progress towards elucidating the minds of the birds we pretend to watch. We know even less than we think we do.

And it is an elucidation of life which is worth striving after. Not the mere enthusiasm of the scientist for

his work, but the strange lure of migration has kept man trying to reach the solution for so many hundreds of years. A tremendous amount of serious work has been put into this, a vast quantity of so-called results have been obtained; and although no one is even so much as half discouraged, our work has brought us very little nearer to the heart of it. It is the riddle which is hidden deepest of all in the mystery of the bird's mind.

Chapter XV

THROUGH THE FOREST: EPPING



There is only one forest for the Londoner. Since 1882, when Queen Victoria declared it free and open for ever, it has occupied a place of some affection in the hearts of millions of city dwellers, as indeed is fit and right, seeing that it was largely owing to the efforts of the Corporation of the City of London that the forest was saved for the general public from enclosure and building. 'The Forest of Essex', as it was called in the old days, must have been very much of a misnomer: it is quite dissociated from the rest of the county, nor do other parts of Essex seem to regard it with much enthusiasm. It is significant, perhaps, that there is no direct bus service from Chelmsford to Epping or any other part of the forest. A Colchester man would never refer to 'the Forest' as a Londoner often does, but would always distinguish it just as he would the New, or Sherwood, or Charnwood Forests. London people frequent it, London buses and London cars pass through it in every direction in never-ending streams, so that just when you are congratulating yourself on being well and truly lost in the forest's leafy

depths the familiar sight of a scarlet double-decker bound for Liverpool Street or some destination equally prosaic, serves to disillusion you completely.

There is no denying the beauty of the forest, however. Its trees, though they may not have the majesty and dignity of age, are curiously pollarded and everywhere delightfully arranged. Every few yards a new aspect of the woods reveals itself, for the forest is constantly changing, never quite repeating itself but varying the pleasant sylvan theme with pleasing slopes and ferny dells, tree-capped mounds and swampy hollows. And it really is a forest. Choose your path carefully, and in autumn and winter you can walk all day under the trees and see never another human being.

The pity is that there is nothing wild about the forest. Wherever you go you feel that it has all been tamed, and although every semblance of the wild remains you cannot help remarking the lack of something. It is like a serpent with its fangs drawn—a forest made safe for the city dweller. Its six thousand acres provide one of the largest natural sanctuaries in the country, and certain species take advantage of such protection as it affords them. Leaving his office at six the city man in summer may, if he so wishes, watch such birds as the Hawfinch, Heron, Great Spotted Woodpecker, Redstart and Wood Warbler at their nests, and still return in comfortable time for supper. Or he may stay into the late twilight to listen to the songs of many Nightingales and the churring of the

mysterious Nightjar. Can the naturalist in New York, in Paris or Berlin, boast of so convenient a hunting ground?

Perhaps the forest itself is at its best in late autumn. The constant stream of cars rolls by, but few people stop or trouble to get out, and usually one can have the forest very much to oneself, which is as things should be. From the roadway the autumnal forest is seen as a blurred mass of uninteresting greens with patches of bushes reddened and russet here and there to arrest the eye. Only leave the roadway and plunge in among the trees, and it is like stepping out into a different, a faery world.

O the beauty of trees! The rare green ashes with their drooping clusters of dry brown seeds, chestnuts already umbered and oaks splashed with russet and stippled with yellow; the beeches in glory of gold, and feathery hornbeams sickly yellow or still fresh and green. Here and there are delicately leaved silver birches, their slender trunks of black and white visible to the highest tip—most ladylike of trees. Under the beeches the ground is bare with velvet knobs of green moss, but here and there the hollows are filled with drifts of crisp golden leaves. Elsewhere the forest's floor is strewn with languid tongues of bracken, most artistic of plants in its careless profusion, emerald green beneath the thicker trees, white or pale lemon beneath the birches, and in the open quite sere with each finger of frondage brown and spotted like a fritillary's back. Down here the summer is very loth to depart, and

even at the end of October there are flowers to be pulled; when the sun shines softly, the sky is clear and the air still. Sometimes it is so still that you can hear each separate leaf fall, and see it twirl and turn as it drops limply to earth. Such days alternate unexpectedly with more wintry ones when the air is filled with a positive storm of leaves, and the trees seem to thin visibly as they bend before the gale.

Strange how birdless the forest is! Sometimes when the wind drops everything is silent and still and the faint drubbing of distant motor cars conveys the impression that the forest has been abandoned by everything. One can walk through glade after glade without one's attention being really attracted by the movement of a bird. Stand still for a minute or two and you will hear rather than see birds; the fastidious, minute notes of wandering Blue Tits threading their way through the bushes, the ringing 'klée klée . . . twasée' of Cole Tits, the dainty cries of the little Goldcrests, veritable 'pin-points of sound', and the thin, penetrating 'zee zee zee' of the drab Tree Creeper following them from tree to tree. On the wood edge a Magpie in a tree-top calls 'churruk churruk' questioningly, looking for his fellows who have gone on an expedition out into the open fields. The Magpie is an uncommon bird in most parts of the forest, although there are plenty of these handsome wicked fellows in other parts of the county. The soft churring of Jays (they keep up an almost continuous squawking) sometimes rises suddenly to a

perfectly frenzied chorus of harsh abuse. It is a Tawny Owl or a hunting stoat that they have found—for the Jays miss nothing, and judging by the noise one might think that some of them were dying in the most fiendish torture. They hate the Tawny Owl, and their angry hysterical passion is certainly most expressive.

If you wish to see birds here, however, you must go out of your way and look for them. Of course in October the air overhead is crowded with Wood Pigeons and Stock-doves flying hither and thither in all directions. Every now and then they fly out of the trees with a great clatter of wings, and dash off. Most of them are birds which have migrated from the north, the majority of them, doubtless, from Scandinavia. Many of the Stock-doves probably come from Scotland and Northern England where this bird is common enough in summer but much less numerous in winter. They crowd together in the tops of the oak trees where they pull and swallow the ripe acorns with almost feverish concentration, and sometimes the numbers of pigeons which fly out of a single tree are amazing. They are essentially sociable creatures, very herd-minded, and at night hundreds will pack together in the tops of a few safe trees, usually oaks.

Apart from these the commonest species are always the titmice, fairy-like and dainty little chaps always full of excitement and the goodness of life. Probably nowhere else in England is the Great Tit so common as in Epping Forest. A larger and bolder edition of the Blue

Tit, with a glossy blue-black crown, white face and yellow underparts, he has a variety of sprightly cries and spends all his time peering and poking about in tree-crannies, examining branches or exploring the hearts of bushes for moth larvæ, aphides and a thousand and one other minutiæ which lie hidden in invisible corners. The frail little Long-tailed Tits in pink and white and black are common too. Their quiet approach is heralded by a soft 'tsirrip tsirrip', and suddenly they come, dancing one after another over the bush-top, begin searching all the twigs and branches, cocking their tails up here, now plunging into the heart of the bush and all making gradually in one direction. Of all the titmice they are the most oblivious of the presence of humans, and so excited and absorbed are they that sometimes a motionless watcher can almost touch them as they go about their business. The Cole Tit, though not so numerous as the Marsh Tit, is an even more lively and obvious bird, constantly a-twitch. Indeed its ringing voice, 'tche sée tche sée', is the most distinctive sound of all the autumn woodland. The Willow Tit, too, is regularly to be seen, although because of its striking resemblance to the Marsh Tit it is not frequently recognized. Several bird-watchers even disbelieve the fact that this species is tolerably common in the south, and are encouraged in their ignorant convictions because they are not able to distinguish and identify this species in the field. The bird is in fact so like the Marsh Tit that it was only recently that it

was admitted as a separate British species, and to most eyes the two are quite indistinguishable in appearance. The Willow Tit has, however, a resonant and rather sad 'tchay tchay tchay' note which is quite distinct from any of the Marsh Tit's varied cries. So that it is more profitable to listen than to look for it. Great ignorance of its status and distribution in various parts of the country persists, although in a general way the opinion is that it is uncommon in the south, becomes commoner in the north and replaces the Marsh Tit almost entirely in Scotland. But it is certainly not uncommon in Essex, and experience in Yorkshire and Durham would have it that there is not a great deal of difference in its numbers in either area, north or south. In both it could be described as being somewhat local and thinly distributed—but not rare or uncommon.

The titmice come and pass on. While they are here the trees are alive with minute, restless bodies flitting through them, and the air is full of their penetrating, needle-like cries. When they have moved on everything seems silent and meaningless. Usually a party of Goldcrests, smallest of our birds, accompany them on their wanderings, and occasionally a single Nuthatch. Never more, however, for it is not a species typical of this forest, where its sharp invigorating whistle might well be heard more frequently.

Under the beeches is a large crowd of finches feeding on the fallen mast. The birds are constantly flying up into the branches above, while those below move

slowly forwards, their heads all pointing in the same direction. Most of them are Chaffinches, as is soon shown by the pied wings of the cocks flying up, but a hard note and a certain unfamiliarity of plumage among the others speak of another species. They are Bramblings. The Brambling is the Chaffinch of the Scandinavian woods, closely resembling it in its winter plumage, and best distinguished when at rest by the absence of the white shoulder patch of the commoner species, and when in flight by the distinct bar of white over its lower back and rump. It has a ring of chestnut round its breast and (most striking feature of all) a shoulder patch of brightest chestnut-red. Females are less distinctively marked. In autumn they migrate south-westwards and every year appear in Epping Forest before the end of September, settling down there to a half-vagrant, half-sedentary life beneath the beech boles. There is something jerky and wooden about all their movements, and when you approach the whole flock flies up into the branches above and makes its retreat through them. As they go up their short harsh note seems a typical northern sound, very different from the sprightly 'pink pink' of the more southerly Chaffinches. They search the ground beneath the trees and against so vague a background are almost invisible. In spite of their variegated, patchwork plumage the cocks are far from being conspicuous, and to add to this they are a rather shy and retiring species. Even the Chaffinches, their companions now, are timid

and flighty, a great contrast to their bold assertiveness throughout our springtime.

Of other finches there are surprisingly few. Sometimes in the open thickets a wistful piping of Bullfinches, calling to each other in the blackthorns, may be heard, and the simple 'titchup' of a pair of Linnets flying overhead. The Hawfinch, of course, is popularly supposed to have its stronghold in Epping Forest and is sometimes quoted as an example of an increasing species. Yet the fact is that one may walk through a whole autumn day in the forest, through its choicest portions too, and see not even a single bird of the species. As the Hawfinch is the largest and most curious of all our British Finches, and perhaps the most interesting of them to watch, this is a great pity. Its spiritual home has always seemed to the naturalist to be in this forest of Epping, for it was here in 1832 that the bird was first found breeding in Britain. From that date till 1842 these birds were very common in the forest, the largeness of their numbers being attributed to the great abundance of hornbeam seeds during these years. After 1850 the species suffered a decline and for several years continued to be scarce here. In 1881, however, there are records of two hundred to three hundred birds at a time, which seems to indicate that the pendulum had swung once more in the right direction; and this happy state of affairs appears to have continued right up till the end of the Great War when a single watcher recorded over one hundred nests. From 1918 up to the

present there appears to have been another decline in the numbers, and watchers who know the forest thoroughly seem to be agreed that the Hawfinch is now a rather uncommon breeder there. So that the historical evidence seems to suggest a periodical rise and fall in numbers, a sort of slow fluctuation, with the present day as one of the lowest points on the scale.

The Hawfinch is at all times a retiring bird, and does not advertise its own presence in any way, always flying into cover as soon as disturbed. In flight it is a very red-brown bird, rather heavy and with conspicuous white tips to its wings and tail. At rest the grey collar round the back of its neck, its rufous cheeks, and of course its massive horny bill, are features distinctive enough for anyone. The small flocks are most secretive, and usually only the soft, distinctive call-note betrays their presence, as often as not among the hornbeams to which they are so strongly addicted.

It was the comparative absence of this bird which provided me with my first great disillusionment in the forest, and made me begin to question its efficacy as a sanctuary for birds. At first sight it had seemed a forest of enchantment, a veritable fairy wood where strange and rare birds might well be expected. Where were they? Its six thousand acres of protected woodland should, by all rights, provide us with one of the grandest and most successful of our inland bird sanctuaries. Yet do they? If one reflects upon the almost complete absence of certain woodland species which

might reasonably be expected to be fairly well established in the forest, but which are either entirely or almost entirely absent, one begins to doubt its efficacy as a sanctuary.

Consider the case of two woodland birds, both summer visitors to this country and both admittedly uncommon and steadily decreasing species—the Wryneck and the Hobby. Naturally one would not expect either of them to be common here, but one would at least think that the presence of such apparently conducive surroundings would lead to their breeding fairly regularly, or at least intermittently. Yet since 1847 the records of the Hobby nesting in the forest are non-existent, and a nest of the Wryneck seems to be recorded nowadays about once in a decade. Of course records are not the whole story, but nevertheless one may watch a long time without seeing either in this place in which of all sanctuaries one might reasonably be led to expect them. Yet in places less obviously favoured (from a human point of view), in Surrey or Hampshire or Berkshire, they are to be observed every year.

The Woodcock is another absentee. This species is one which of recent years has increased considerably as a British breeding bird, although as a winter migrant to our shores it seems to have become less numerous during the past two or three hundred years. It has not yet become an Epping Forest bird, although an occasional nesting pair is recorded. Of course it is possible to believe that the dry, sandy and flinty soil and the

absence of springs are against the bird's prospering here, but there are swampy hollows and marshy bottoms wherein the birds might find food enough, and there are hundreds of open glades down which the roding Woodcock might fly on its crepuscular summer flights.

The Green Woodpecker is of course fairly numerous but by no means so common as it is a few miles off on more open ground in central Essex. Its well-known laugh, fluting and falling, is not such a feature of the woods as one might expect, and strangest of all the Nuthatch, which everyone would expect to be common, is found only very sparingly—a sad miss. Of the hawks the Kestrel and Sparrow Hawk linger on, but they are the only ones. And one can never even hope that the glorious Honey Buzzard will return to a forest which is evidently not fit for a Hobby to make its home in. It seems almost as remote as the possibility of a Great Bustard breeding in Hyde Park!

The Woodlark is yet another bird which is retreating in front of the work of man. A hundred years ago it seems to have been a fairly common bird in the forest, but after the middle of the century (when east and north London were extending rapidly) it began to disappear. It is to be doubted whether a single pair have bred here now for half a century, although odd birds have been observed occasionally outside the nesting season. Its sweet pure singing as it spirals above the trees is heard here no more, and instead we must content ourselves with the emotional pyrotechnics of the Tree Pipit.

It is possible to argue that it is unfair to condemn the forest as a failure merely because of the absence of three or four species, and to retort that it provides breeding grounds and sanctuary for a host of commoner species. Nevertheless the species considered were carefully chosen and there is some justification for considering that they provide an adequate test case.

It is unfortunately only too true that the forest is quite undistinguished as a breeding centre, for apart from the few lingering Hawfinches the only birds of note which it attracts in any numbers are species like the Redstart, Wood Warblers, Great Spotted Woodpeckers, and such birds as may be found nesting practically anywhere throughout the country. And outside the breeding season the forest is comparatively empty of birds. Even species like the Thrush, Blackbird, Dunnock, Robin and Pheasant, which abound in an ordinary wood, seem to lose themselves in the depths of the forest. The Jay whose angry presence is immediately sounded in every wood and thicket one enters in Essex, is here heard only in places. Except for one or two the Finches are scarcely represented. The three Woodpeckers are heard only occasionally, although there are old parks and wooded commons not many miles distant where all may be regularly heard and seen within an hour's space. The miniature Lesser Spotted Woodpecker, the male a veritable little jewel of a bird with its flaming crimson cap, is here an unusual bird, and its soft call-note and its faint laughter as it jerks its

way tit-like among the slenderest branches is infrequently heard. The comparative absence of old and decaying timber may have something to do with the rarity of such birds. But to find that Titmice, Chaffinches and Wood Pigeons are for the most part the only birds to be seen here in winter is decidedly discouraging. The abundance of certain small birds is interesting, indeed it may even be gratifying to some to think that probably nowhere else in Great Britain are the Blue and Great Tits so prolific, but the marked presence of such birds is in itself a proof that something is wrong. Such species always flourish where the hand of man has strongly modified the landscape.

If we ask why it is that the forest is found so wanting in its bird life various reasons immediately suggest themselves. First, of course, the propinquity of the great metropolis must have something to do with it. On the face of it one would not logically consider the near presence of London as a deterrent to the success of a bird sanctuary (the city reservoirs are the haunt of countless thousands of wildfowl), but the fact remains that its influence on the forest is inimical in several ways. A bird such as the Turtle Dove, which abounds elsewhere in Essex and in the neighbouring districts of Hertfordshire, tends to avoid the forest, in spite of the fact that the forest is excellent Turtle Dove country. Birds are very sensitive creatures and the presence of anything unusual on or near their breeding grounds is enough to start a decline in numbers. When the wooden

bungalows of trippers make their appearance in the sand dunes the Terns disappear for ever, and the Stone Curlew goes at the first hint of enclosure. Only a few species can accommodate themselves entirely to the near presence of civilization and continue to flourish; the rest retreat and decline. We may not be able to isolate the factors and the actual reasons which bring about these declines, but it is useless attempting to blind ourselves to the fact that civilization is directly inimical to the welfare of the majority of species. Its very object is to tame and organize the wild, to supply a man-made order of things in its stead. In the case of the forest we find the civilization of the metropolis attempting to steal unnoticed into the wild, and doing it very successfully. But unfortunately it cannot help leaving its marks everywhere. The undergrowth has been cleared in many parts so that considerable stretches are without adequate cover and food supply; even the trees have been prevented from growing naturally. From time immemorial man has wrought these trees to his own shapes by judicious pollarding, and they have grown twisted and unnatural, small and thickly set together. Instead of noble growths of various trees rising from a thick impenetrable undergrowth we see a puny modern growth chiefly of beeches and hornbeams. We deceive ourselves if we think that the mediæval or primeval Forest of Essex was anything like this. Another point to remember is that the district has been well drained, for although this may have been essential from

a human sanitary viewpoint, it has not been so excellent for avian welfare, and the increased aridity of the naturally dry and flinty soil has probably had a good deal to do with the gradual disappearance of several species.

Main roads crowded with traffic split up the forest into what is really a collection of woods, none of which provides adequate seclusion for a really retiring bird. You cannot entirely escape the noise. Excursionists from Leyton and Walthamstow laugh and shout among the glades (Heaven forbid that I should ever suggest that the forest should not be the scene of such merrymaking, but at the moment I am considering it purely as an avian sanctuary) and desirable residential villas spring up mushroom-like on its outskirts. A half-hourly service of bus and train 'to all parts' may be a highly desirable blessing from a human point of view, but the constant sight and sound of rumbling vehicles and the prowling beings which use them have very different associations for the mind of a bird. If, by some miraculous means, the whole forest could be transferred to some quieter part of the country it seems probable that it would soon be a flourishing bird sanctuary in spite of its present natural disadvantages.

In writing this no derogation is intended to the beauty of the forest. He would be a fool indeed who could not delight in the many beauties of such a woodland. It is very right that human beings should be considered before birds, and that the millions of the greatest city should have and use such a playground. We must

not expect, however, far less pretend, to be able to cater perfectly for both man and birds together in any place.

To the majority of Londoners the inherent deception of the place is invisible; they cannot see that the apparent wildness of nature there is now a sham, just as the forest deer are—a mere playing at being natural. Guide-books continue to recommend its natural beauties with the conventional blurb which ninety-nine out of a hundred swallow, and misguided natural history societies continue to hold annual excursions there, and return after a fruitless half-day pretending among themselves to have enjoyed their communion with nature. The trees are there and the greenery and for a few delicious moments it all seems splendidly real, but you have not been in it long before you feel that the spirit, the life is gone—it is like an egg with the yolk neatly removed, a mere shell.

Not long ago I was talking with two members of a London natural history society who had done a considerable amount of bird-watching in Epping Forest. For one of them, indeed, the forest was, by force of circumstances, a regular hunting ground. Asking to hear their experiences of it as a bird sanctuary I received from both terse but certainly illuminative opinions. One ventured to describe it as 'a wash-out' and the other had only one word for it—'lousy'. I am afraid I rather agree. As a forest its beauty may be peerless, but as a bird sanctuary it falls a very long way short of distinction.

Chapter XVI

A GREAT WATER: HICKLING



Hickling Broad is the finest place in the world for some things. Whatever your interests or your tastes in scenery its charm will not escape you: it is fascinating, and that is all you can say about it. A mysterious, faery water, with a thousand reedy corners to be explored, great distances of calm unruffled water, bare and open to the sky. A mysterious great water, as vague and enchanting as that across which King Arthur sailed on his last voyage,

to the island valley of Avilion;
Where falls not hail, or rain, or any snow.

It is the largest of all the freshwater broads, and with Heigham Sounds and Horsey Mere constitutes one of the most secluded corners of Broadland, and one of the finest bird sanctuaries in the Kingdom. From the yachtsman's point of view it is not too popular as the Hickling staithe is a cul de sac, and the whole broad so shallow that most craft can only cross it safely by keeping close to the posts which mark the channel across the middle. All its edges are surrounded by huge reed

beds which make most parts of it unapproachable from the shore (some of them are anything up to a mile thick in places), and which can only be explored by means of a light flat-bottom boat.

These are the main facts about Hickling Broad. Its charm, and the atmosphere which it possesses in such rich abundance, I do not attempt to convey. It is incommunicable. Although scarcely a mile and a half across there is something limitless in its expanse, and the shores on every side are so low and flat that the water seems to stretch as far as eye can see. Rowing a boat out on Hickling one is impressed by its size quite as much as by the grandeur of Ullswater or Windermere. In late autumn the broad is practically deserted, and then how silent everything is! Not even the purr of a motor, or the barking of dog or cock crowing on some distant farm. Even the gaunt hulks of windmills, standing up like derelicts across the russet reed beds, appear to be deserted: in fact it seems as if the whole landscape has suddenly stopped and grown silent. Only the vague clapping of water against the boatside, the cry of a gull, the raucous 'fraák' of a Heron flapping overhead . . . such is Hickling.

It was night-time in late October when I made my first acquaintance with Hickling, and rowed through inscrutable darkness across its black, oily waters. Here and there the pale spectre of a Mute Swan appeared, and went surging past, snorting to itself, to disappear in ghostly fashion into the dark. Somewhere ahead was

a confused, loud murmur of sound, very mysterious if not to say awe-inspiring. It consisted of a vague chirm as if from a million suppressed voices which now and then rose suddenly to passionate intensity, and a noise of falling water like the roar of a great cascade heard in the distance. Sometimes the two blended noises would drop off into complete silence quite suddenly, and then grow up again to their former intensity. It is easy to smile in broad daylight at the pale relation in black and white of such an experience, but to me for a few moments it seemed as if some power were abroad that night, as if great, mysterious spirits were moving about over the face of the dark waters, perhaps those

Presences of Nature in the sky
And on the earth! Ye Visions of the hills!
And Souls of lonely places!

of which Wordsworth speaks in the Prelude.

At length, of course, a more prosaic explanation presented itself. On nearer approach the first noise became recognizable as that of an immense army of Starlings which had encamped for the night in one of the reed beds and which were evidently solacing themselves by a little hushed community singing. Londoners who have seen these birds huddled in hundreds on the ledges of the National Gallery and in nooks and corners of St. Martin-in-the-Fields, will have remarked their singing which sounds shrilly late at night above the roaring and grinding of the traffic. In the present

instance, coming across the water in the stillness of the night the sound was most moving, especially when it mixed and blended with the other roaring sound, which, by the way, came from a great flock of Coots rushing across the surface of the water. We know that flocks of Coots when attacked by eagles are known to send up a great blinding spray of water, accompanied by a loud, roaring sound, but there were no obvious reasons why these birds should be moved to keep rushing over the surface in this strange fashion. Who knows what panics seize the nocturnal bird? Perhaps it was some strange communal rite which they practised.

From that night onwards I have always thought of Hickling as a slightly eery, enchanting place. Even without its birds it would remain a wild spot, captivating the mind with its strange, unearthly beauty; but, when he finds that there are more rare birds here than in any other single place in Britain, the bird-watcher enters a veritable paradise.

In summer wild ducks of various species breed near the Broad. Except for the Gadwall, which strangely enough prefers the south-west corner of Norfolk, most of the ducks one would expect are present. Sedge Warblers and Reed Warblers abound everywhere in the reeds. Lapwings wheeling, Snipe drumming, and Redshanks trilling and bleating in the air enliven the marshy edges where the sedges cease. Frequently the scene is ennobled by the languid flight of the Marsh Harrier, usually a great deep chocolate-coloured hawk

floating lazily along above the reeds. Nowadays, thanks to rigid protection, both the Marsh and Montagu's Harriers are once more fairly firmly established as breeding species, and these birds, with the Bearded Titmouse and the Bittern, are the pride of Norfolk, for to all intents and purposes the county has a monopoly of them.

In autumn when the summer visitors (avian and human) are gone, and the succulent green reed stems have changed to yellow, sere stalks, the scene is vastly different. All is silent. Even in mid October there is a good chance of seeing either of the harriers, but after that they soon disappear. One or two Montagu's Harriers linger as if affectionately over the marshland by the old Meadow Dyke that leads from Heigham Sounds up to Horsey. They give distinction to the landscape, ennobling it quite as much as the Buzzard does the hill-country. The Marsh Harrier, a much larger, heavier bird than the commoner Montagu's, gets his living as best he can, striking down a young, helpless Coot, a crouching leveret or a winged duck, or picking up a toad or frog among the sedges. He is no falcon. He beats low and lazily above the reed-beds and open fenland, or circling on his slow heavy wings soars and drifts like a Buzzard, often dropping his long yellow legs. His great wings are a varied pattern of rufous, grey and black, and his creamy head and pale blue tail add to the richness of his plumage. The leisureliness of his slowly rising wings has its own majesty.

He is the most distinguished of all the fen-hawks.

All the three harriers which breed in Britain are rare birds, and their various plumages display considerable variation. The majority of those seen in Britain outside the breeding areas are immature specimens, and most field-watchers are puzzled when it comes to identifying them. Usually the birds are at a distance, and remain in sight for such a short time that size is useless as a clue to the bird's identity. Of course one can always tell a Harrier by the buoyancy and apparent indolence of its flying; the bird simply floats on the air as effortless as down. But to identify it specifically is another matter, and most textbooks are either useless or misleading. The following method seems to me to be an effective, if crude, means of distinguishing between female and immature specimens of the three when they are met with in England in places away from their breeding haunts. To begin with Montagu's and the Marsh Harriers are summer birds, the Hen Harrier usually a winter visitor (to England). The former pair are easily distinguished by the difference in their sizes, and also by the fact that the immature Marsh Harrier never has a white rump[1] whereas most Montagu's have. (You will find this denied in a certain authoritative textbook, but it is true nevertheless). The immature Montagu's is a brown bird with white on the rump; the Marsh Harrier a chocolate-brown bird with a creamy head and no

[1] In the very old cock Marsh Harriers the rump is almost white. Such specimens are very rare.

white on the rump. Any harrier seen in the winter months with a white rump may definitely be taken as a Hen Harrier; in summer (May to October) as a Montagu's. In addition the Hen Harrier is larger than Montagu's Harrier and has a proportionately longer tail. So much for the pedantry of field observation.

When the harriers are gone the wide reed-beds lose much of their distinction. They are secretive places, these reed-beds, they give nothing away. Only push your boat through, and quant along the narrow passages among them where no man goes, and you will see something of the bird life which hides in their depths. Here a Kingfisher sits on a stump, his bill slanted to the water. Intent and motionless his sharp eye watches for a fish to swim within range. Apparently there is none, so growing restless he shuffles round, spots us and is off in a flash, whistling excitedly as he goes. A moment later he again shoots past us in the opposite direction, following his mate who has taken it into her head to fly this way. A keen piercing whistle serves as a warning, and when they pass the pair swerve and give us a wide berth.

A little troupe of Bearded Tits follow them, bobbing up and down in sprightly fashion over the tops of the reeds. They are all excitement, and even when they have alighted among the reeds they keep fluttering and dancing from stem to stem uttering a curious faint ringing note: 'tip tip tip tswing tswing'. The cinnamon bodies and red tails simply flash among the dead straw,

and the birds refuse to be still for a moment. The male with his blue-grey head, drooping black moustaches and long red tail, is an exotic-looking little fellow, yet he spends all his life among these same reeds, feeding on sedge seeds and the minute insects which are to be found among the reeds.

He straddles the reeds like a tight-rope walker, flashing his tail from side to side as he sways, and uttering his earnest, arresting 'ching ching ching'. Then, quite suddenly he twitches off with energetic, undulating flight—a hundred yards and more, then drops into the reeds. The others are with him.

Sometimes a mournful, long drawn out squeal rises from the reeds. A wailful squeal of indescribable intensity as of some creature in greatest distress, it rises, swelling on the air, then dies away in low querulous murmurs. It is the 'sharming' of the Water Rail. Usually this is about all the evidence one gets of the presence of this bird. Even on a little pond it manages to hide itself fairly thoroughly, but to search for it here in these immense beds is as bad as looking for the proverbial needle. Sometimes one stumbles upon the bird by chance, and sees a little dark figure, scarcely bigger than a Blackbird, scurrying off head down into the reeds. If you watch for it in a known haunt, however (once settled it is no wanderer but very much of a home-keeping kind of bird), and keep very still for a very long time, you may see the most retiring of our birds creeping about among the bases of the reeds like

some miniature and less perky Moorhen. Tail up and head down he searches on the rotted vegetation for slugs or insects, wandering slowly and leisurely about in a rapt, haphazard fashion. His umber back, streaked with black, his slate-blue underparts, and his flanks striped with black and white, are very well suited to a hermit-like manner of life, but his long crimson bill serves no purpose of camouflage. Altogether he looks a very distinguished bird indeed. Whether it would appear so distinguished in our eyes if it were a bird of everyday occurrence is, however, another matter; but the Water Rail is so secretive that it is quite an achievement to see the bird at all. If it were not for the 'sharming' noises from the birds as they call to each other across the reed-beds, one would never even suspect their presence.

The Water Rail prefers the thickest areas of the reeds where the Coot and Moorhen rarely venture outside the breeding season. It is not often to be seen on the open water and, unless driven out by hard weather, or the hand of man, it will remain in one section of the reeds throughout the year. The Bearded Tits, dancing over the tops of the feathery stems at least see something of the world outside, but this bird rarely flies, and lives in the constant half-light of the shadowy sedge. How strange a life the Water Rail's must be!

A black-headed Reed Bunting cheeps wistfully from a willow bush, and then joins his mate. Suddenly there is a great commotion in the reeds just ahead, and an

immense brown bird rises awkwardly from the sedges. At least it *appears* immense for a moment, although actually the Bittern is a smaller bird than the Heron. Its large wings rising and falling deliberately, it flies heavily off over the reeds, and out of sight, its green legs drooping behind it as it goes. That is about all one sees of the Bittern—for it is another hermit of the reeds. During the day it dozes in concealment, emerging in the dusk to fly to its feeding grounds. Sometimes a night boatman on the broad will hear the raucous, incoherent cry of some strange bird flying overhead in the dark. Sometimes in the early morning, before the sun is properly up, it is possible to see the great bird flapping over the water back to his hide-out, returning in the misty, early light like some belated reveller.

The Bittern is one of the rarest of our breeding birds, and only a few years ago had been given up as an extinct British-breeding species. It has profited from that same earnest protection which wrought the salvation of the harriers, and to-day is almost flourishing in certain parts of Broadland. Visitors in May and June, though they are not likely to see the bird in the flesh, will not be disappointed of hearing the deep sepulchral booming of the male bird in its nesting territory. The survival (resuscitation would be a more appropriate word, perhaps) of this bird is one of the major triumphs of modern English bird protection, and Norfolk naturalists have every reason to be proud of their fine achievement.

A November morning on the open broad itself, although revealing no such rarities as the Bittern or the Bearded Tit, reveals a much greater wealth and variety of bird life. Serious watching is almost impossible in a boat but, if you merely want to find out what sort of birds are about, there is nothing like getting out on to the water. Out in the open the Coots are a timorous, herd-minded crowd, flocking together and making for the edges of the reeds whenever a boat approaches. This behaviour is a violent contrast to the behaviour of Coots near the landing staithes and boat-houses, for there they have grown so accustomed to the harmlessness of man that they swim about within a yard or two of one's boat, or stalk about in the grass in front of one quite unconcernedly like Moorhens in a city park. Little more than a hundred yards away their fellows retire into the reeds, and disappear as soon as a human being shows himself. All over the great mere coots are dotted in every direction, each bird constantly diving with a splash, and often reappearing with its white beak full of water-weeds.

Here and there a glint of silver-white shows a Great Crested Grebe—nearly always a single bird, for grebes rarely fish in company. Down it goes in a long, shallow effortless dive, emerging twenty yards further off, where with its back sunk, and its neck awash, it eyes our movements nervously. As the boat approaches, it grows frightened, being cut off by a line of reeds, and swims from side to side, undecided which way to go.

Then, with a determined header of its long, lithe neck and spear-like face, it makes its escape underwater.

By mid November a fair number of the winter ducks have arrived. Hundreds of Mallard and Teal haunt the watery edges of the reeds, where they swim about, dibbling, preening or dozing throughout the day. Many of them are concealed, sleeping in the reeds, and sometimes when they are disturbed the numbers that go up are amazing. There is a great roaringof wings rising in the air, a confused babble of quacks, and then the birds sort themselves out into companies, filling the sky above with constantly crossing lines of whistling, eager wings, eager bodies with necks outstretched, racing and chasing, turning and circling, some planing down on to the water with wings arched taut, others mere specks up in the blue. In a few minutes all are settled once more on the water. There is much quacking as they prepare to land in the water, and a good deal of preening is done before they sober down again.

What could be finer than a flock of Mallards all swimming close together in the white light of the winter sun, with the sere brown of the sedges for a background? The shining emerald heads of the drakes flashing in the sun, and their chests bright as burnished bronze, they are indeed as handsome as any of our ducks. Even at this time of year they often seem seized with amorous impulses, and the drakes frequently rise suddenly in the water, dipping their heads before a duck, and emitting at the same moment a shrill, stac-

cato piping note. It looks as if the birds were bowing suddenly and quickly in the water to the ladies they have singled out. One can watch this performance better, however, on any park-lake than on Hickling where most of the birds are very wild. Suddenly spotting us, their necks shoot up straight, the birds become tense and rigid: next moment they are all in the air.

Mixed parties of Tufted Ducks and Pochards dive together most industriously, agreeing very well together. They spend all their days diving for food and wander but little from their chosen spot. What happens to all the female and immature Pochards is rather a mystery, for most of the birds which visit us seem to be adult drakes. At a rough estimate I should say there are usually about two drakes to every duck Pochard in England in winter. What the reason is is obscure—as a matter of fact I doubt whether this point has ever been raised before in print—but we may gladly accept such a dispensation, for the drakes with their jet-black necks, red heads and chaste, grey backs, are handsome birds, whereas the ducks are merely smudgy and unsatisfactory to the eye. The stolid (one is almost tempted to call him stodgy) Pochard is a heavy, comfortable creature, nothing like so quick, sharp and alert as the Tufted Duck. The Tufted is nothing if not smart in everything—shape, plumage, behaviour and intelligence. The Goldeneye, of which there are always a number scattered about on the water, is a wilder creature than either of these. It takes flight at the first

sign of man, and when its neck goes up there is very horror in the wild staring of those yellow eyes, such as Pochards and Tufted Ducks rarely feel. The Golden-eye seems to be a more sensitive bird than either of these latter, and though its manner of life is very much the same, it is none of a here-today-and-gone-to-morrow visitor, rarely settling in one place for any length of time. There is something essentially arctic about the adult drake. In sunlight it appears more white than black—and such a white! And there is something like a touch of genius in that spot of white on the cheek by the base of the bill.

Throughout the day gulls come flying in from the sea—Great Black-backs, Herring and Common Gulls—for they prefer to bathe in fresh water, and the distance involved is negligible. On a calm, clear day you can even hear the breakers out by Horsey Gap. Cormorants hang themselves out to dry on the tall posts that mark the channel across the middle of the broad. Sometimes, when scarcely a single post is left untenanted, new-comers have to frighten off the gaunt, sagging statues by flying down upon them from above, in order to secure a temporary position for themselves. They come in during the early hours of the morning, and sometimes after preening and drying themselves they will stand upright there for hours on end. Somewhat out of place, perhaps, but adding a distinct flavour to the atmosphere of the place.

The reason why these Cormorants, as well as Herons

and gulls of all kinds, make such a habit of this post-squatting, is obvious. Every bird likes a comfortable snooze sometime during the day, particularly after a heavy meal, but in most cases the wild bird finds such a siesta very difficult to obtain. For absolute safety is essential to a hunted bird, and though every wild creature sleeps with one eye open, it is not much use if it is going to be constantly disturbed. The advantages of a secure perch far out in the water are consequently obvious, for it is impossible for any bird to be surprised in such a position as this. Hence the picturesque habit.

Apart from these birds and the gulls that bathe together in the afternoons there is not a tremendous variety of life out on the open broad. The majority of the wildfowl keep more or less to the safe margins of the reed-beds. Here and there a Mute Swan idles about, or a brown-headed female Goosander appears on the surface for a moment. Most of the real hard-weather fowl, however, have not yet come, and will not do so until winter shows his hand in unmistakable fashion, which he does not usually do before the end of the year. Goosanders, Smews, Whooper and Bewick Swan appear on Hickling annually, but it needs a touch of bitterness to bring them in. Sometimes when the sea is rough outside strange sea-ducks visit the quieter waters of the Broad. Scaups are almost usual, and even such a strictly marine species as the beautiful Long-tailed Duck is very far from being unknown. For such birds we

must wait for the grey days when the biting, merciless nor'easter comes roaring over the sea, and jagged ice tinkles beneath the reed-stems.

For fresh-water birds of all kinds Hickling is a very paradise. It offers natural protection to the hunted bird, and an abundant food supply too. It abounds in fish. It is shallow (most parts are not more than four feet deep) and it has plenty of excellent cover. Nevertheless it would not be right to treat Hickling merely as a sanctuary. It is something greater than that. It is one of the last relics of England's ancient landscape, one of the great natural haunts of birds which has not yet been effaced from the map by the labour of man. It is the bird-watcher's duty to see that such a stronghold of the wild be not spoilt. For it is as important to the student of the wild that Hickling should be preserved as it is for the student of literature and art that such buildings as the British Museum and the National Gallery should be maintained. Such country as this is part of our national heritage, and without it England would be a poorer land. Only when you have tasted the wildness of the great water can you sense that old England of Hereward's times, when throughout the grey Fens was many another such a stretch of water as this; only then can you picture the great hordes of wildfowl winging their way from the Continent across the dark seas to their wild winter home.

Chapter XVII

ONE AND SIX FROM WATERLOO



In those mythical 'good old days' when England was still a wild country covered with unhewn forests and undrained marshes, when she was still a land of dreamy cathedral towns and foul highways, you might by making an uncomfortable and possibly dangerous journey to the Fens have seen something of the myriads of winter wildfowl which then visited our land. Such a journey as old Thomas Pennant made in 1769 to the Lincolnshire marshes excites our imagination nowadays and is apt to set us dreaming of many a long lost bird:

'The birds which inhabit the different fens are very numerous; I never met with a finer field for the zoologist to range in. Besides the common Wild Duck, of which an account is given in another place, wild Geese, Garganies, Pochards, Shovellers and Teals breed here. I have seen in the *East Fen* a small flock of the tufted Ducks; but they seemed to make it only a baiting place. The Pewit Gulls and black Terns abound; the last in vast flocks almost deafen one with their clamours. A few of the great Terns or Tickets are seen among them. I saw

several of the great crested Grebes on the *East Fen*, called there *Gaunts*, and met with one of their floating nests with eggs in it. The lesser crested Grebe, the black and dusky Grebe and the little Grebe are also inhabitants of the fens, together with Coots, Water-hens, spotted Water-hens, Water-rails, Ruffs, Red-shanks, Lapwings or Wipes, Red-breasted Godwits and Whimbrels. The Godwits breed near Washen-borough (and when fattened sell for half a crown or five shillings apiece); the Whimbrels only appear for about a fortnight in May near Spalding, and then quit the country. Opposite to Fossdyke Wash during summer are vast numbers of Avosettas, called there Yelpers from their cry. . . .'[1]

An account such as this, quaint and terse as it is, is enough to rouse regret in the minds of most bird-watchers. 'Quantum mutatus ab illo' seems to be the obvious remark to make. Thinking on these lines we are somewhat apt to regard those long past days with sentimental eyes, the times being over now when the decoy-carts fetched away wild-ducks by the thousands, and you had not to ride many miles from the City to shoot your Bittern. Many a rare bird was then to be seen within walking distance of the Metropolis. The Bearded Tit nested freely in the Thames marshes, majestic Kites lined the roof-tops on London Bridge, and many another modern rarity was then an everyday

[1] *A Tour in Scotland and a Voyage to the Hebrides*. Thos. Pennant, 1771.

sight when the city lay 'open to the fields and to the sky'.

Nowadays, when miles of factories and slum, street after street of shops, districts and districts of refined suburbia shut us in on every hand, a bird-lover in London may be pardoned if he sometimes feels depressed. We often hear eloquent outbursts (from people who ought to know better) against the extension of Greater London and the gradual defacement of the Home Counties' countryside. Where now (we are asked) can we see anything like the bird life of old England? The answer to which conventional rhetorical demand is simple. You no longer need to go on a cumbersome journey to the Fens. You need not go many miles beyond Surbiton. You may go after lunch and return in good time for tea—and in that short space you will have seen as many species of wildfowl as ever Pennant saw on all his Lincoln fens.

It is one of the paradoxes of its bricks and mortar that London is certainly the best centre in the whole United Kingdom for watching wildfowl in winter. It was W. H. Hudson, I think, who popularized the exceedingly foolish and sentimental idea of the pale-faced city millions (amongst whom he at times counted himself) all cut off from the vivifying breath of Nature and her wild creatures. There is no call for so jaundiced a view, and no backing whatever for the idea of London as a wilderness of stone and brick. Of course no one would describe it as a paradise for wild-birds, but the evidence shows that for those who have eyes there

is many an uncommon bird to be seen—especially in winter. The Welsh Harp would hardly seem an attractive haunt for the Snow Bunting, yet it has been seen there, and the Slavonian Grebe appeared quite recently on an even more public stretch of water—the Round Pond. Recently a few observant passengers on electric trains running through south-western suburbs have been constantly delighted by the sight of a number of drake Smews (White Nuns as they used to be called) swimming or diving in the waters of a flooded clay pit. Last winter a Red-throated Diver spent several weeks on the Serpentine and became so tame as to sleep on the grass within full view of thousands of passers-by. No doubt its behaviour was affected by the hundreds of semi-domesticated ducks there, but in any case Londoners had a unique opportunity of watching this wary and fascinating bird at close quarters and with completest intimacy. To see a Scaup by Somerset House or a pair of Kestrels flying over Parliament Square are not the impossible dreams of a modern visionary but chance encounters in the life of every London bird-watcher.

The loud-voiced fears of those who see the Metropolis as a mighty incubus gradually extending, as a huge cancer destroying the neighbouring countryside, appear then to be largely groundless. Viewing the matter generally it seems unlikely that our countryside will again undergo such a transformation as it suffered during the nineteenth century. But the essence of everything is change. New residential areas, probably

chiefly in the south, will continue to cause further ruination of 'beauty spots' and natural sanctuaries; but on the whole there is nothing we can imagine to cause much apprehension. Doubtless a minor outcry was raised some years ago when thousands of acres of good Middlesex ground were taken, and reservoirs to supply London's millions with an adequate water-supply were built over them: yet to-day it is no exaggeration to state that these reservoirs of Staines, Molesey and Littleton are the most astonishingly successful bird-sanctuaries in the country. They are not many minutes away from the city, and they may be in built-up areas, but to their spacious waters countless thousands of wild ducks resort each winter. Rarities are to be seen there daily. Choose some sunny Saturday afternoon in December, preferably during a period of frosts or after rough weather in the north—or if you wish to make a day of it choose a Sunday. Take the train to Staines. A few minutes' walk from the station and you are there.

Across the centre of Staines reservoir is a causeway which divides the great stretch of water into two and (from a bird-watcher's point of view) acts as a most convenient promenade. Every Sunday morning throughout the winter you will find here a curious assembly of people. Nearly all of them carry binoculars while several lean strange, ancient-looking telescopes against the iron railings and, with one eye glued to the lens, stare for hours across the water. Occasionally they exchange a nod of greeting or compare notes

among themselves, but for the most part they spend all their time in watching, peering earnestly at unseen objects in the distance. They are a cheerful, kindly crowd, many of them retired professional men, and if you are interested in birds you will be quickly welcome among them. Some of them never miss their weekly day of observation at the reservoir, and the collective records they have compiled include an astonishingly large number of rare and unusual visitors. If you are an ordinary human being you will probably be rather interested by this band of unusual men out on the open causeway; but, if you belong to that blessed type of humanity for whom the sight of a strange wild bird has its own relish and fascination, you will probably not remark the presence of other human visitors for some considerable time. As soon as you have climbed the bankside and emerged in the midst of this veritable inland sea you will be impressed by the numbers and variety of wildfowl there.

Far out the glistening white of Great Crested Grebes catches the sunlight. There are loose disconnected flocks of the birds here and there, while odd birds are diving by themselves in every direction. The chestnut ruff and long tippets of summer are gone now and the birds look almost arctic with their white speckled spear-heads and gleaming necks. They are even more wary at this time than during the breeding season, and avoid any close approach to the man-haunted causeway. They are constantly travelling through the water in

long fluent dives, fishing as they go—or else they swim quietly together making no sound. Frequently one of the rarer grebes is to be observed. The Black-necked Grebe, which has more than once bred on one of the Metropolitan reservoirs, is an almost regular winter visitor. At this time of year it is a small black and white bird more like a large edition of the Little Grebe than a smaller Great Crested, and like the former too in being comparatively confiding. It sits high out of the water, but when alarmed (which is not often) sinks its body low in the water and swims rigidly with neck erect. On one occasion that I observed it a Black-necked Grebe allowed me to approach within fifteen yards and was only slightly perturbed even when stones were (vandalistically) thrown at it. After diving it frequently preened itself vigorously, turning over on its back and paddling round in small circles with its left foot while it billed the thick white feathers of its neck and flanks. At this short distance its crimson eyes and short black bill (the lower mandible slightly upturned) were plainly visible to the naked eye. It did not appear to capture anything underwater, but occasionally took something from the surface and frequently caught insects near the water. Another habit of the Black-necked Grebe which betrays its affinity with the Little Grebe is its happy knack of trilling or whinnying prettily as it rides the water—a sound to be heard early in the New Year and doubtless the adumbration of sexual awakening.

The Slavonian Grebe, another winter visitor to the

reservoirs, is very similar in appearance but decidedly distinct in character. It has more grey than black with its white, but the most certain identification mark when distinguishing it from the Black-necked Grebe is its eye which is entirely surrounded by white. It is a frail and spiritual-looking creature with a long slight neck, a short pointed bill, and when unsuspicious swims buoyantly with its back humped up, and its white downy flanks fluffed out. It dives almost constantly. The familiar Little Grebe, haunter of almost every riverside and quiet pond is strangely enough not recorded frequently from the reservoirs, and when it does appear there is usually alone. For some reason of which we are ignorant it obviously finds little in the reservoirs to attract it.

The remaining British grebe, the Red-necked, is in winter a bird of the salt water, not usually recorded from inland waters.

Perhaps of all the birds out on the water the most striking are the Goosanders of which there is always a great flock resting and dozing, sometimes as many as one hundred and fifty together. If that highly overworked adjective 'streamlined' could ever convey real meaning in describing anything, it should be used to qualify the noun 'Goosander'. With its long white neck folded the drake's smooth green head is carried alertly close to the surface, its dark crimson bill cutting the air in front, while its black and white wings are closely folded on its back. Its long glossy body lies deeply in

the water through which it glides more smoothly and effortlessly than any ship: its ease and poise there are perfect. In flight it is dart-like and direct, absolutely straight from the tip of its bill to the end of its tail, and although it flies at great speed its pied pointed wings merely flicker, although at a tremendous rate, moving through a very small angle. Anything more swift and intense it is difficult to conceive.

Only about one in every eight is an adult drake in pure black and white—the rest are nearly all female Goosanders with ginger-hooded heads and dull grey bodies. Most of their time is spent in idle floating but occasionally a rapid chattering 'kukerukeruk' comes from a more active group. There is an oft-repeated sipping of water and eloquent raising of chestnut heads. Occasionally a bird will suddenly rush over the water with neck outstretched. The drake will rise out of the water shaking himself as if merely seeking increased comfort, but unconsciously trying to look his best at the same time. We are probably wrong in labelling behaviour of this kind as courtship—for even in winter a bird's life has its own peculiar little ceremonies. The greater portion of their winter life, however, seems to be a blank. Watch any individual drake and see how aimless a life he leads. He swims slowly for a yard, pursued by a pair of attendant females, then pauses as if in some doubt, then turns and swims back. There he remains for some minutes staring ahead, or perhaps laconically preens his white feathers. Fishing is usually

over by noon, and throughout the afternoon scarcely a bird dives.

Our only other fresh-water Merganser is the little Smew. On Staines reservoir it is never a numerous bird and the adult drake in its curiously beautiful white and black plumage is distinctly unusual; but on the smaller waters near East Molesey Smews in every state of plumage are regularly seen and in numbers too. A Smew is only about one-third as big as a Goosander, but unless you have both species side by side the great difference in size is not particularly noticeable. Its lightness is probably the reason for its much greater liveliness, it is always active. The Smew is constantly on the move, swimming here and there busily diving or flighting over to some other part of the reservoir. Its flight is light and exceedingly swift and the agile little diver glances from side to side with great skill. Even when at rest its wings are snapping or twitching on its back as if eager for activity. It sits further out of the water than the Goosander and dives so lightly that its body jumps nearly out of the water. What it captures underwater is something of a mystery. Certainly not always fish, for some of the waters where it is particularly common are fishless, while others well stocked never attract the bird.

Of the ordinary surface-feeding and diving ducks there is always a plentiful variety. Round the concrete edges are crowds of blue-headed Mallards dozing and preening. Parties of dainty Teal sleep quietly on the

banks. Wigeon, always awake, swim together dibbling and feeding in the shallow disturbed water near the edge. The sun lights pleasingly on their creamy foreheads and pink breasts: their loud clear 'whée oo whée oo' enlivens the whole scene. A few pompous-looking Shovellers with chestnut bellies, white necks and shining green heads stand motionless among the Mallard, their orange legs bright in the sun, while in front of them three or four swim gravely in slow circles with their huge bills in front guzzling the water for crustacea.

In a safe corner of their own a crowd of red-headed Pochards are diving stolidly. As usual they have chosen a stretch of water which is inaccessible and rarely move very far from it. Nearly always they are accompanied by parties of black-and-white Tufted Ducks. Nothing could be more animated than a mixed flock of these ducks all busy diving, the grey-backed, black-necked Pochards disappearing heavily and the pied Tufteds bobbing up woodenly here and there among them. Both birds push their way head downwards to the bottom, and with their webbed feet paddling upwards hold themselves in position while they take snails and other crustaceous items from the watery growths. Further over still is a party of Goldeneyes, chiefly drakes, or at least it seems so for their brilliant plumage renders them by far the most conspicuous of all the ducks. They are a conservative species and rarely mingle with the other ducks. With them there is a strange little bird—a young drake Long-tailed Duck.

In the usual way of life this species is a haunter of the high seas, not even venturing into the estuaries, but it is not so entirely averse to fresh water as is usually imagined and after rough weather will remain inland for long periods. Of recent years it has occurred so frequently at Staines as to be almost a regular winter visitor. The bird is usually alone on its inland visits and specimens with long tapering tails and pied plumage do not usually occur. The present bird is small, no bigger than a Smew, with a peculiarly quizzical white face and black patches on its neck and breast. Occasionally it faces up to the Goldeneyes as if desiring more intimate companionship, but each time is 'warned off' by a threatening advance. The Goldeneyes are busy displaying and brook no interference from smaller and weaker fowl. Affected by this behaviour, no doubt, the little Long-tail also begins a half-hearted display, stiffening his body and gently pushing his neck and head high in the air. Once he jumps clean out of the water in an elastic bounce, and lands a good yard away. Observing a solitary duck Goldeneye stretching her head along the surface (sure sign that she is amorous) he approaches her raising his head to her in salute. A drake Goldeneye is on him in a rush and the gay little Lothario swims hastily off with his head in the air. Further approaches being repelled in the same way the little duck grows discouraged and flies off elsewhere. In flight its chocolate crown and white face with its small size and agile flight give it very much the appearance of a female or

immature Smew, but it is even swifter than that bird in the air. It turns and glances through the air in fluent curves, banking as smoothly and daintily as a Teal. A few moments later it is busy diving by itself. As it goes under its wings half open, apparently in readiness for use underwater. The wings of most diving ducks are closed underwater, but it would seem probable that the Long-tailed Duck resembles the Auks in using both feet and wings to propel it underwater.

Sometimes there are other marine species to be seen on the reservoirs. The Scaup is by no means uncommon, single birds usually attaching themselves to the Tufted Ducks which they rather resemble. Divers, too, of all three species have been recorded from time to time and, what is more unusual still, a party of Razorbills were recently observed on Littleton. As these birds are always exclusively marine their presence on fresh water must always indicate misfortune of some kind. In the present case all the birds succumbed to intestinal disorders to which they were doubtless laid open by living under unnatural conditions. There is usually a Sheldrake swimming tamely by the causeway side, showing off his burnished bronze ring, his glossy head and red bill. It is always possible to dismiss a freshwater Sheldrake as an escape from some ornamental water, but when there are so many other seashore ducks here there does not seem to be much point in doing so. The tameness is natural. Even in estuaries where fowling is regular the curious 'Bargoose' is not particu-

larly wary, but shows every readiness to be confiding.

At migration times there are hundreds of strange passers-by, chance callers or weary ones of the sky seeking rest. The Black Tern drifts leisurely across, dipping down to the placid surface to catch an insect, then sweeping up and round on its long pointed wings. Round and round it flies languidly but buoyantly, ever dipping down and restlessly rising: then suddenly a shrill call as if the bird were uttering to itself a command. The blue-grey wings lose their eloquence immediately, suffer a discipline of mediocrity, and the bird flies onward on its journey. The Grey Phalarope, Little Gull, Garganey are others which may be looked for.

The number of wildfowl which find perfect sanctuary on this great reservoir is as amazing as the variety. On a recent visit a rough estimate of the numbers of the various species recorded in an afternoon by two watchers was attempted with the following results. Bear in mind that the date was 3rd March and that the estimates are entirely conservative:

Gulls of various species	800	Shovellers	30
Mallard	200	Pochards	10
Teal	150	Carrion Crows	10
Goosanders	150	Herons	6
Great Crested Grebes	130	Smews	2
Wigeon	100	Shelduck	1
Goldeneyes	80	Long-tailed Duck	1
Coot	80	Red-breasted Merganser	1
Tufted Ducks	60	Shorteared Owl	1

Quite a satisfying bill-of-fare.

We conclude then that modern civilization is not without its advantages even for a bird-watcher. The lure of grey sea-marshes, the dark estuarine flats, the call of the wild brown moorland, the stern shadow of crags and screes, the blue haze of the hills—even the simple charm of the unspoilt common and the quiet of sunlit woods—are indispensable to anyone with an inner passion for wild birds, but it is no longer entirely necessary to venture into the wilderness to see them. If as a city dweller you feel that you are a naturalist frustrated by miles of mortar and brick you have only yourself to blame. If you declare that the extension of building is entirely detrimental to wild life and that no bird can thrive near the city then ('O pardon me that I descend so low'), you don't know what you are talking about. To see a dozen species of British wild duck in an afternoon, to see all three Mergansers in the field of your glass, to record a Peregrine Falcon, a Shorteared Owl or a Little Auk within an hour of Oxford Circus and watch them all with comparative ease and comfort, is now a simple matter. No long expensive expeditions nowadays, no dangerous highways and doubtful hostelries. If you feel the call of the wild no lack of time or money need prevent your following it. Greater London has provided for you: FOLLOW THE BLUE LIGHT FOR WATERLOO.

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